AGRICULTURE AND PRICES IN ENGLAND

London
HENRY FROWDE

OXFORD UNIVERSITY PRESS WAREHOUSE
AMEN CORNER, E.C.

A HISTORY

OF

AGRICULTURE AND PRICES

IN ENGLAND

FROM THE YEAR AFTER THE OXFORD PARLIAMENT (1259)
TO THE COMMENCEMENT OF THE CONTINENTAL WAR (1793)

COMPILED ENTIRELY FROM ORIGINAL AND CONTEMPORANEOUS RECORDS

BY

JAMES E. THOROLD ROGERS

VOL. V

1583—1702

Oxford
AT THE CLARENDON PRESS
M.DCCC.LXXXVII

PREFACE.

THE period of economical history in England which is comprised in these two volumes begins with the middle of Elizabeth's reign, and concludes with the commencement of Anne's. It has always been a period of profound interest. There is no part of English history on which so much has been written, no part on which so much should have been written; for it is full of great events, the effects of which survive to our own time, and of great men, whose career is and will be of permanent interest to all Englishmen. My contribution to the history of these eventful hundred and twenty years is, by the very terms of my enquiry, entirely different from that of any person who has hitherto handled the subject. I am dealing with facts which have been utterly neglected by those who lived through those times, and have been undiscovered by those who have treated the circumstances of those times. In the earlier ages of English history, social and economical events have been dwelt on with no little care. At a later period similar events have forced themselves on the attention of contemporaries, and have been made the subject of more or less careful

enquiry by men who have been constrained to deal with those formidable facts, which I trust I shall show to have been the inevitable outcome of what occurred during the hundred and twenty years of my enquiry. But little or no notice is taken of the events which I have to dwell on. The times were too stirring. We do know that a great plague occurred in 1665, and a great fire in 1666, but the best information we have of the former is from an imaginary narrative written a generation and a-half later by Defoe; and though the latter could not escape comment, the fullest knowledge which we get of it is from Dutch contemporaries. I am not aware, and I have searched pretty carefully, that any English writer makes any allusion to the great famine of 1661–2, or to the prolonged dearth which characterised the five years 1646–1650. But even in the fifteenth century, dark as the annals of that century are, the famine of 1438 is duly commented on.

The first and most obvious economical feature of the period before me is the effect which the influx of the precious metals from the New World had on prices. It appears that this operation was completed at about the middle of the seventeenth century, from which time till the last quarter of the eighteenth but little change in prices, other than can be assigned to minor but ascertainable causes of cheapness or dearness, as for example economies in the process of production, can be discerned. During the seventeenth century also there was an increasing demand for a gold currency,

and with the inevitable consequence, the elevation of its trade or exchange price above its mint price.

The second fact is the great exaltation of rents for the occupation of arable land. It is by no means easy to obtain evidence as to the history of agricultural rents, for the corporate estates of the Oxford and Cambridge Colleges are almost invariably let on terms, with fines on renewal at intervals. But it is notorious that such leases, even if the fines were duly interpreted, never represented the rack-rent value of the occupancy, that they were in fact beneficial leases, which the lessee sub-let at a considerable profit to himself. It is however clear that very early in the seventeenth century the rent of arable land had generally increased nine-fold over the old rent, and in many cases even twelve-fold over customary rent at an earlier period. From information which has been most obligingly supplied me by Lord Leicester, it appears that no fresh increase of rent took place during the whole century, for the rental of the Coke estate is almost unchanged from the days of the great Chief Justice in 1629 to those of John Coke in 1706. This elevation of rent is almost if not quite effected by exalted prices of agricultural products. The other and far more powerful cause of rent, economy in production, owing to improvements in the art of agriculture, scarcely came into existence at all during the seventeenth century. It was in the eighteenth century that the art of agriculture progressed by leaps and bounds, and this was due to the fact that during the eighteenth century the great land-

owners were the most zealous students of agriculture, and the boldest experimentalists in new methods of culture.

A third important fact in the economical history of this period is the rapid growth of population, despite the singular severity with which plagues of various kinds—the old plague of 1348, small-pox, and typhus or spotted fever—ravaged the towns. This increase was partly due to immigration from the Netherlands and France, partly to the growth of domestic industries, especially cloth-weaving, but most of all to the settlement and occupation of the counties north of the Trent. At the time of the Revolution, as we can see from the returns of the Hearth Tax, the northern counties were nearly as fully peopled as the southern, certain differences of soil and climate being taken into account. These counties were especially, though not wholly, the seats of the new manufactures. In the seventeenth century, too, other manufactures than those of textile fabrics made considerable progress. Paper, glass and iron were increasingly produced in England, apparently of excellent quality, and chiefly in the South of England; paper in Kent, glass and iron in Sussex. It is to this century also that the art of smelting iron by pit-coal is assigned. There is evidence that this process was known a century before, but it may well have been improved by Dud Dudley, its reputed inventor.

A fourth fact is the enormous development of English maritime enterprise. Great discoveries had been made by the Captains of Elizabeth's age, by Drake, Hawkins,

Frobisher, but the exploits of these famous rovers rose little above the level of piracy, however much they may have trained men for higher purposes, and familiarised them with maritime adventure. The seventeenth century witnessed the development of the East India Company, from the humble beginnings under Clifford Earl of Cumberland in 1600, to the time when Child and his associates could afford, out of the surplus profits of the Company, to bribe Leeds and Seymour, and create a party in Parliament. In the period before me too was begun that creation of the English-speaking colonies, from which in the fulness of time and by the folly of a Hanoverian king was developed that great Republic, which seems destined by peaceful changes to vindicate the vast continent in which they were planted for the English race.

A fifth fact is the mass of social legislation, productive of such lasting effects, which this period witnessed, permitted or endured. Many of the consequences which are derived from this legislation influence English social and economical life at the present time, and are inducing economical problems upon us of no common greatness and difficulty. The seventeenth century is the beginning of modern economical history.

A sixth marked feature in the economical history of England, during the seventeenth century especially, is the development of the joint stock principle in commerce and manufacture. The beginnings of some of these agencies are to be found in the reign of

Elizabeth, but the early days of such associations are of feeble and interrupted efforts. The origin of these companies was the prerogative claimed by the Crown of granting monopolies of trade, a prerogative cautiously exercised by Elizabeth, and prudently curtailed by her when it became unpopular, and revived by James with his customary recklessness and obstinacy. In course of time the privilege of the chartered company was conferred on those associations only which dealt with such business as could not be undertaken by private individuals, because it was too great, too remote, and too risky for private action; and after the Revolution it was affirmed, with conclusive authority, that Parliament alone could confer monopolies of such trade. It is unnecessary to refer in detail to the remarkable institutions which have been developed from this Parliamentary doctrine. But among them is that singular and successful institution, the Bank of England, whose career has been so honourable and useful, whose management, though it has not been without errors, is the accumulated experience of commercial honour and shrewdness, of good faith and patriotism. No institution has ever triumphed more completely over unprincipled and rancorous foes than the Bank of England has, and the example which this country has been able to afford the world of Parliamentary Institutions would have been grievously imperfect, had not this great financial instrument given steadiness to the machinery of Representative Government.

The next great economical fact is the success of the conspiracy, baffled for more than two centuries, against English labourers. This is indeed the saddest part of the retrospect. I have attempted in an earlier volume as in this to narrate, not without indignation perhaps, but with no conscious unfairness, the early history of the strife between employers and workmen and the commencement of that crisis in the struggle during which the labourer was hopelessly beaten. The seventeenth century witnessed the course of that strategy, the issue of which at the end of the century was that Gregory King classified the whole mass of workmen among those who do not increase but diminish the national savings.

The mechanism employed for the degradation of the English labourer was the Justice of the peace. There is much obscurity about the origin of this office, the time at which it was invented, and the process by which this official appears to have superseded the ancient local jurisdictions, and to have punished offenders without the intervention of a jury of presentment or a petty jury. But it seems that the office was in working order after the struggle was commenced between employer and labourer. In the end, all the force which law could give the former was entrusted to the Justice, he being by the very condition of his office a judge in his own cause [1]. It is sufficient to say that

[1] At first, the Lord's Court was the tribunal before which the labourer who claimed higher wages was to be arraigned. This had a very different procedure from that of the Quarter Sessions.

for two centuries the attempt to coerce the labourer into working at wages which the law or the justices assessed was a failure, and that for near three centuries, under the 5th of Elizabeth, it was successful. The regulations of the magistrates (several of which are printed in the sixth volume) during the seventeenth century brought the labourer down to absolute penury, and to reliance on poor-law relief.

Another fact, which I cannot confidently call an economical phenomenon, though it certainly had marked economical consequences, is the high average price of wheat, and the constant recurrence of serious and occasionally prolonged dearths. Contemporary writers comment on only one of these, the seven years of high agricultural prices at the conclusion of the seventeenth century. But prices during these years were by no means so high as at other periods, and as wages had risen considerably, even under the justices' assessments, at the end of the Civil War, were not nearly so distressful to the poor as they were at earlier periods. It must have been during these evil times that the staple food of the English labourer, wheaten bread, was changed, especially in the North, to rye, barley and oat bread. It was entirely impossible that, with the wages permitted him, the labourer could subsist on that which his ancestor consumed. At the same time it should be remembered, that though there were game laws, it is plain that the fowling and snaring of wild animals was still practised, and indeed could not be restrained. Now what the peasant sold at the great

house in his neighbourhood, he could procure for the maintenance of himself and his family.

The two volumes which I am now offering to the public will leave me, if I have health and opportunities, within measurable distance of the completion of this work, which I undertook, in ignorance of how great the task was, a quarter of a century ago. The interest in these volumes is I submit of a very varied kind. That of the last two will consist mainly in the extraordinary zeal, activity and judgement with which the landowners made themselves acquainted with their own estates and with agriculture, undertook most valuable experiments in husbandry, and were the practical teachers of the art to small proprietors, the yeomanry, and the tenant-farmers. There is hardly any service of a public kind which was greater than that which was done to English agriculture by many of the landowners in the eighteenth century. There is a record of their services in the invaluable Tours of Arthur Young.

Unhappily, the impulse was transient and speedily exhausted. The long period of high prices, bad finance, and destructive war came on, and the landowner as a rule ceased to be a benefactor, and became an oppressor. I seem to be hearing echoes from the seventeenth century when I read, in a letter addressed by Mr. William Calvert to Sir Richard Sutton (one of the best landlords of the time), under date of Feb. 5, 1794[1], the following observations:—

[1] Printed in Lowe's Survey of Notts, a report addressed to the Board of Agriculture of which Arthur Young was Secretary.

'I am sorry to say, some landowners are so jealous of any profit accruing to the tenant, that they are constantly enquiring into his profit, and without considering his losses, expenses, etc., by advancing his rent on the least suspicion of advantage, he is driven to the waste and destruction of his farm, for his own present support.'

The courage of Mr. Calvert is as creditable to him, as the public spirit of Sir R. Sutton is in sending the letter to Young for publication. But the evil was not arrested, and our age has seen the consequences.

I have increasing reason to believe, that researches such as these are to a considerable extent modifying those airy and unreal speculations which, under the name of political economy, have been constantly seen to be inaccurate and mischievous. Any examination of the laws which regulate society from the important aspect of how wealth is distributed or appropriated or accumulated, after its production by labour and capital, which takes no account of economical history, is sure to lead to errors, which are grotesque when merely speculative, but disastrous when adopted in practice. When facts are weighed and their influences estimated, the economist who is worthy of the name may be able to exactly interpret results or as exactly predict them. Some of the results which he discovers and predicts as necessarily happening, or as inevitably about to happen, may be in the highest degree disastrous. They may be incapable of being rectified by any individual or any combination of individuals.

Then the manipulation of the situation becomes the province of the statesman, who, whatever self-interest or pedantry may assert, is bound with the least possible hesitation to save society from the mischief which the economist predicts. The economist may say with perfect truth, Such and such things will happen. The statesman may have to answer, These things must not happen, and law, which should arbitrate between the weak and strong and be the outcome of intelligence and practical wisdom, as the great philosopher said[1], shall interpose.

The growth of textile manufactures in England is not only made the subject of Parliamentary reports and of repeated legislation, sometimes unjust in the case of Ireland, but was traced to its true cause, as is shown in this remarkable passage from Davenant's Works, vol. ii. p. 235: 'The learned prelate (Burnet) who has obliged England with that noble work, his history of the Reformation, discoursing once upon these matters with the writer of this Essay, did urge a thing of which the philosophy seemed very sound and right, and upon which we have since reflected often; he said, that nature had adapted different countries for different manufactures, that cold and moister climates are fitter for the working up of wool, because there the sun does not exhaust its natural moisture, nor make it brittle, which would render it ill to work and bad to wear.' Davenant then proceeds to justify, on grounds of state

[1] 'Ο δὲ νόμος ἀναγκαστικὴν ἔχει δύναμιν, λόγος ὢν ἀπό τινος φρονήσεως καὶ νοῦ. Eth. Nic. x. 9. 12.

and policy, the forcible suppression of the Irish woollen manufacture, because it might become the rival of England, since it possessed to the full those natural advantages of climate which England enjoys. Burnet was unquestionably right when he recognised the physical peculiarities of the English climate, and their economical value.

JAMES E. THOROLD ROGERS.

OXFORD,
October 1, 1887.

*** The evidence on which the conclusions are arrived at in this volume, as far as prices are concerned, is contained in that which follows. I wish I could have avoided the labour and expense of printing it; but being in the main extracted from manuscript records, it was necessary to collect and print the evidence, in order to prove my inferences, and to enable others to search into the materials for themselves.

CONTENTS.

CHAPTER I.

INTRODUCTORY.

THE period with which my preceding volumes closed, a little beyond the middle of Elizabeth's reign, had been marked by a general exaltation of prices, due, as I am increasingly convinced, to the form which the restoration of the currency took in the early years of the queen's reign. I am continuing my enquiry down to a little after the accession of Anne, i.e. to the end of the agricultural year 1702–3. It is during this period that the new discoveries of silver produced their effect on England; of course, as such accessions of the currency only can, through trade and the foreign exchanges, the process having been accelerated, first by the prolonged war between the Spanish king and the United Netherlands, and next by the development of English commerce. We shall see in the course of the hundred and twenty years comprised in the present volume, that no period throws more light on the general theory of prices than that which I am dealing with at present.

The political problems which affected English life at this time were almost entirely domestic. The English Government had abandoned the idea of continental conquest, even though dominion was offered, nay even pressed on it, for Elizabeth would have been gladly acknowledged as sovereign of the Dutch confederation. The epoch of colonial and commercial conquest had not begun, though England made some of her earliest acquisitions in the last half of the seventeenth

century. For a time, too, the dread of a universal European potentate was suspended. Universal empire had been the dream of Philip the Second, and he had squandered all his resources in the effort to subdue the revolt of a few out of his many provinces. Spain sank into decrepitude, and less than a century after the death of Charles the Fifth it became of no account in Europe. It is possible, had the life of Henry the Fourth of France been prolonged, that this ambitious and unscrupulous king would have assumed, with better hopes of success, the purposes of his ancient enemy of Spain. But Henry perished in the fulness of his purposes, and his son had no purposes whatever. The century was coming to an end, when Louis the Fourteenth found a field for his ambition and affrighted Europe. Till the English Revolution occurred, England took little part in continental politics. Cromwell it is true waged successful war with Spain and Holland, with the former it seems to prove his power, with the latter against his will, and not much to the credit of the country whose affairs he administered. But by this time the princes of the House of Orange, to whom a century before the Dutch owed so much, had begun to work the downfall of their country.

The seventeenth century is the most interesting and instructive period to the student of politics and of social forces, whether we consider the events which occurred, or the men who were concerned with them, for there is no time in which the personality of public men is so marked, and in which the action of those who determined the course of these events has been so far-reaching and enduring. Within the period which lies before me, new principles of government, new rules of administration, new theories of social duty and social right were enunciated, affirmed, and endure to this day. The seventeenth century developed novelties in finance, which would have seemed impossible to a previous generation. It organised that wonderful system of banking and currency, the efficiency of which is so perfect, the analysis of which is so difficult, and yet so constantly examined by presumption and

incompetence. The seventeenth century is as attractive to the historical economist as it is to the statesman and philosopher. It is a period of strange and continuous progress. In one particular only does it show signs of decay. The intellectual vigour of its youth is followed by the senile pruriency of its close. But the Court of the Restoration accounts for the fact that the age of Shakespere and Milton is followed by that of Farquhar and Dryden.

The period with which I commence was one in which Elizabeth's Government was in extreme peril. Everything hung on her life, or seemed to hang, and she was threatened on all sides. Among his many resources, Philip kept an office for hiring assassins, and his vigorous and able deputy, Parma, was as shrewd in bargaining with these adventurers, as he was in the field or at a siege. Her rival and enemy Mary Stewart was still alive, but in prison, and Elizabeth had lately obtained, in the memoirs of Nau, her secretary,[1] evidence from her own dictation of more than the crimes which her severest critics have ever laid to her charge. But the queen was well served, and those whom the discipline of her government treated severely were sincerely attached to her. That Burleigh, Walsingham and Davison were acute and well-informed I do not doubt, but Elizabeth was made more secure against foes by the affection of her people than she was by the services of the spies in the pay of her counsellors. Nor do I believe, as some historians do, that Elizabeth was lulled into false security by the blandishments of her deadliest enemies. I prefer to conclude, as is most in accord with her character, that she saw through the flatteries and falsehoods of her enemies, and was wise enough to affect ignorance, but to take all the means in her power to baffle them. That she did not do more than she did was due to her poverty. Her father and brother and sister had ruined the resources of the country, and she had no opportunity for practising those

[1] I refer to the Memoirs of Nau, published by the Rev. Mr. Stevenson. The original is in the Cotton MSS. I have examined it myself.

lessons in finance which the Dutch were giving, for the maritime enterprise of her people did not during her reign rise much above piracy, though the feats of Drake augured well for the national defence by sea.

The harvests of 1587 and 1588 had been abundant, and the English people was plentifully provided with the means of life. The storms which, coming earlier in the year, have been, periodically, the invariable cause of dearth in England, were in 1588 deferred till the harvest was housed. Then the stars in their courses fought against Medina Sidonia, and no doubt many a divine, when the peril was past, drew his parallel for Philip and Parma from Jabin and Sisera. The study of the Old Testament was very invigorating during the century which lies between the accession of Elizabeth and the death of Cromwell.

Towards the latter end of her reign, clouded as it was by a number of unfruitful harvests, on which I shall comment in due course, Elizabeth made great efforts to improve her finances, by granting charters to companies, and by conferring monopolies of trade on individuals. Both were supposed to be prerogatives of the Crown. The former were welcomed, but proved as yet premature; the latter gave great offence. It is well known that when her Parliament objected to the monopolies, the queen withdrew them. She lost in the surrender of customs more by the companies than she gained.

The life of the great queen ended gloomily. The Irish difficulty came to the front, and her most attached servants quarrelled. Essex tried to change the administration by force, failed, lost his life, and won many English hearts, because he was persecuted by those in his reverses, whom he had benefited lavishly in his prosperity. The ingratitude of Raleigh and Bacon and Wootton was remembered against them long afterwards. The popularity of Essex descended to his son, and mischievously so, in the great quarrel which was more than a generation distant. The queen too must have known that Cecil, whom she had preferred above his rivals, was intriguing

with James of Scotland. She could not foresee that this man was to become the evil genius of the house of Stewart. 'The sun in his strength' followed 'the bright occidental star.'

James succeeded to the English throne by virtue of that doctrine which the German reformation first gave occasion to, the Divine right of kings. In order to countercheck the Pope, the Lutheran reformers put their princes into the Pope's place. The disciples of Calvin took a different view of the regal function, and the Scotch had already insisted on revising the sixteenth-century dogma, that the prince should dictate the religion of his subjects, by demanding that their king should be of their religion. While James was in Scotland, he acquiesced in the national religion; when he came to England, he strove to enforce the contrary discipline.

For a year after his accession, James, if Acts of Parliament are to go for anything, was not legally king, for the succession had been settled on the descendants of the Duke of Suffolk. But no one thought seriously of their claims. There can however, I think, be no doubt that the fact, well known of course to James, that the legal succession was by Act of Parliament in another, induced James to insist so jealously on his rights, and to distrust Parliament so completely. In this he was aided by the Churchmen, who saw in the Crown the strongest defence against Puritanism, and by the lawyers, whom the Stewarts had rendered subservient by introducing the clause into their patents which gave them office during the royal pleasure only. Perhaps the greatest enemies of public and private liberties which the seventeenth century had were the lawyers, who could not ultimately be tied to common honesty, except by giving them freeholds in their offices.

Beyond those who lived on the Court, and those who hoped to live on it, it is plain that no one respected James. He was learned and shrewd, but he was a pedant and a coward, coarse in his talk, and sluttish in his habits. He was the slave of his favourites, and distrusted, perhaps with reason, those who did him the best services. He endured the insolence of

Somerset, and the insolence of Buckingham, but he permitted the ruin of Cranfield[1], who might have made him absolute, and of Bacon, whom he affected to leave to justice, but who was assuredly no worse man than some of those whom he saved from justice.

At home and abroad, England made considerable progress during the first quarter of the seventeenth century. Slow but substantial improvement was made in agriculture, more obvious growth was manifested in commercial enterprise. During Elizabeth's reign, all classes had been trained by an enforced economy. Hence simplicity of life and manners survived the earlier occasion of their necessity. It would not be difficult, from a study of such accounts as survive, to describe the ordinary life of nobles and gentlefolk in the early part of this century, and to illustrate its dignity, its parsimony, its decorum. Even those who resented the harshness of the Puritanic temper, were attracted by its decency and its thrift. There was but little margin for extravagance, and economy was necessary, and even honourable. Probably the reckless expenditure of Buckingham was as offensive as his pride and arrogance. The representative of his family has the picture of his apotheosis, painted in the workshop of Rubens. An Englishman would hardly have undertaken the preposterous commission.

The quarrel between James and the House of Commons (the Lords were of no account in Parliament till the Restoration) began with his reign. Sir Thomas Phelips, the Speaker of the first Parliament after the accession of James, was an excellent type of those great men, who founded or recovered the British constitution and House of Commons, who formulated its procedure, guaranteed its privileges, and maintained its order[2]. Perhaps the escape of both Estates from the plot

[1] Among my accounts is one of Cranfield's in his earlier days. The estate was in Essex, and was managed by Cranfield's father. See the years 1614, 1615.

[2] The rules of procedure which Phelips framed were contained in Hatsell. They were omitted, for no intelligible reason, by May. Their restoration or enforcement, as I urged in the Parliament of 1880, is sufficient for order.

of November, 1605, may have given the king a transient popularity beyond the Court, but the feeling was evanescent, and the struggle began with Cecil's book of rates.

I reserve, till I deal with the financial expedients of the first two Stewarts, comment on this capital innovation. It had its defence. Louis Roberts, who compiled his Map of Commerce in 1638, just before the storm burst, utters the commonplace of the time as to the sovereign's right to define the conditions and exact the tolls of commerce at his discretion. But in point of fact, at a time when the police of the custom-house was impossible and the country was full of harbours into which ships of light draught could easily run without fear of detection, any increased customs duty would fall on the large ports only, and especially on London. Now in the seventeenth century, and indeed for a century later, it was highly inexpedient to put London in a bad temper. The London traders made the cases of Bates and Chambers their own, and the decision of the Exchequer Court in favour of the Crown was a Cadmeian victory for the Government.

Cecil's book of rates began the struggle which ended at Naseby and Whitehall. Parliament was resolved that the king should not levy taxes without the consent of Parliament, and the Stewarts determined that they would. I need not here deal with a topic which has received the attention of most popular historians, and could not but be stated with sufficient accuracy by all. It is sufficient to say that, looking at the consequences, the issue of this book of rates is fatal to the reputation of the first Lord Salisbury of the house of Cecil as a statesman, or at least as a politician.

The second Earl of Salisbury was affronted at some losses which he suffered by the rigorous exaction of forestal rights or claims on the king's part, and became a regicide, for he sat in the Lords on the fatal 30th of January, and thus approved the deed. His son became a papist, abetted the worst acts of James the Second, and only escaped the con-

sequences by the Act of Indemnity which William insisted on passing.

The dissidence between King and Parliament is curiously illustrated by the different attitude which each took in relation to the events which occurred in the Thirty Years' War. The nation was resolved to assist the king's son-in-law, the titular king of Bohemia, in the recovery of the Palatinate. The Commons therefore made the king the largest grant ever offered, and provided for its levy in the shortest possible time. To secure the grant for the purpose which they had in view, they appropriated[1] it, to use a more modern Parliamentary term, and named the Commissioners who should superintend its expenditure. The king could hardly be offended, but he was certainly far from pleased with the zeal of Calvinists in defence of a Calvinistic prince, who had attempted to usurp part of the divine right of the House of Austria.

If James never had the respect of his people, Charles never had their confidence, even for an hour. Posterity has been more generous to him than his contemporaries were, just as it has been to his grandmother. He owes a good deal to the pen of Dr. Gauden, the probable author of the Eikon Basiliké. He owes more to the pencil of Vandyke, who bestowed refinement on his face and grace on his gait. He owes much more to the grim conclave of regicides, to Bradshaw and Harrison, to Cromwell and Ludlow. He owes most of all to himself, to his own dignity when he was foredoomed and hopeless. The sternest republican, the bitterest enemy of kings, the man who is most fully acquainted with the political vices which stained the character of Charles, cannot but be affected by the tragedy of his death.

After the death of Buckingham, the two ministers of Charles were Wentworth and Laud. The former was a man of dauntless courage, of considerable administrative ability, of implacable purpose. He hated as only a renegade does,

[1] See Protests of the Lords, No. 1.

and he did what few renegades dare to do. His Irish policy was to further the Protestant interest, and he gave vitality and endurance to the interest which he favoured. His English policy was to use the Irish Catholic interest as a tool to destroy English liberties. But I know nothing more tragic than the silent courage with which he sacrificed himself, when his utterances would have been ruinous to that king who gave him up to his enemies. His only complaint was his dying counsel, 'Put not your trust in princes.' The loyalty of the seventeenth century is the most incomprehensible fact in human history. It is exhibited in the most incomprehensible form in the case of Strafford. But love is always more unintelligible than hatred.

The character of Laud is much more complex and difficult. The extraordinary and enduring influence which this person has had on the religious life of England, apart from the facts of his own career, convinces me that the caricature which Macaulay has drawn of him is not only a wrong to the man, but an affront to all historic conscience. The vitality of an individual career cannot be neutralised, much less nullified, by the discovered follies of private life. I have seen and handled the diary which Prynne saw and handled; but without his vindictive and retaliatory impulses. I can wonder that Laud was so supremely silly, and withal was so persistently influential. Of course at that time all men believed in omens, even Charles in the *sortes Virgilianae*, even Cromwell in his lucky day. During the vigour of Calvinism, men were born with predestination in their blood, and assigned the function of natural selection and the survival of the fittest to God, who revealed Himself by the most unlikely agents. And Calvinist predestination affected those who disliked it.

I am disposed to believe that Laud came into power and influence at a time when men were resenting and resisting the dogmas on which the second English reformation was founded. Cranmer's, the first, was essentially Lutheran;

Parker's, the second, was essentially Calvinist. Now the first of these forms was a state religion of compromise, the second a state religion of pugnacity. This phase of religious belief, fed especially on the militant histories of the Old Testament, and fed so to the great advantage of mankind, gradually became less rational and less useful, as the religious strife was exhausted, for a time at least; for in its last effort, that of the Thirty Years' War, it was degenerating into mere brigandage and monarchical ambition. In a sense, Laud's revival was more kindly, more generous, more human than the Puritanism to which it was opposed, for the despotism of rulers is hardly felt by the mass of men, and more rarely understood. Laud was faithful to the Anglican Church, which he refounded, and no one in these days would charge him with the design of conceding in any particular to the Papal claims of his time, unless such a person were entirely ignorant of the facts, and of the man. Had Laud been merely a churchman, and never meddled with affairs of state, he would, I am persuaded, have only provoked enmity from his contemporaries, and would have had as high a reputation as any Anglican prelate of the second rank could have earned. I mean a reputation inferior only to that of Langton and Grostête.

Unfortunately for himself, most unfortunately for Charles, he elected to be a politician, and to be a politician of the aggressive school. So he quarrelled with Abbot, who sympathised with the Puritans, and with Williams, the last clerical Lord Keeper, who had been bred a lawyer, and who cared for none of these things. Thus there came on him the wrath of that section of the English Church which has always been wisely Erastian. With this was joined the wrath of the Puritans, who having grievances to cure, allowed themselves to quarrel over the reconstruction of a religious organisation. These fanatics, to the infinite amusement of their adversaries, wrecked their own cause socially when they had been victorious in everything else,

and gave occasion to a reaction which was infinitely immoral and has been most inconveniently enduring.

Among the other merits of Laud, often lost sight of in the invidious position which he chose to occupy, was his judicious patronage of letters. The higher learning of the seventeenth century owes more to Laud than it knew, more than, if it knew, it would have cared to confess. Laud's resignation of the office of Chancellor in Oxford is a most pathetic document. He had seen his power in Church and State overturned. He saw his usefulness to the University of Oxford marred (I am only speaking of its learning), and, sadly patient, he resigned an office which he could not hold to its profit. The Long Parliament, before it was purged by Pride, put him to death.

One cannot, as I have more than once shown in my earlier volumes, when I have dealt with the action of Wiklif and the Lollards, neglect to notice the economical effect of religious movements. I shall have occasion to point out how the great movement of the seventeenth century affected the position of the labourer and of the capitalist.

In the struggle between Charles and his Parliament, some of the causes of which I do not discuss till I come to deal with the taxation of the seventeenth century, a line drawn from Scarborough to Southampton would give a fair indication of the locality in which the opposing forces were ranged. The Eastern district, of course including London, was on the side of the Parliament, the Western, with the exception of some important towns, such as Bristol and Gloucester, was for the king. The resources of the Parliamentary division were incomparably greater than those of the Royal region. The military resources of the king were far superior to those of his rivals, except in one important particular, the means for paying his troops. Cromwell by the new model soon trained his soldiers, and the resources of Eastern England enabled him to pay them regularly.

Charles was perfidious and selfish, and thoroughly convinced

that he was above all law. But he had been brought up in the doctrine of the Divine right of kings, and was quite convinced that not only was every assault on this doctrine an offence against him, but that every concession he made was not binding, while he felt himself perfectly justified in using fraud where he could not use force. It might be the case that with such a ruler it was impossible to make terms; but in estimating his character and action, it is fair and just to remember that he was what his bringing up had made him, and that the tenets which he entertained were shared by a very large number of his subjects, and were inculcated by a freethinker like Hobbes, as much as by divines and court lawyers.

The course of the civil war materially improved the condition of the labourer. We shall find, when we come to examine the rates of wages paid, that at and after the middle of the seventeenth century the wages of artisans and farm-lands increased by fully fifty per cent. or more, while the price of food, especially meat, of which I have given copious and continuous evidence, though it shows a marked increase, does not grow proportionately. It is I think due to this distasteful increase of wages that the Parliament of the Restoration, known in history as the Second Long or Pensionary Parliament, enacted their protective and restrictive laws.

I need not dwell here on the attempts which Cromwell made to found a constitution, or rather to re-establish that social system which had been suspended. It is plain that, despite his earlier associations with the Engagement, he intended to renew the system of a double chamber and a royal house, and that, his old associates resenting this scheme, he was forced to have recourse again to a military government. This, with the heavy and unusual taxation which he imposed, accounts for the unexpected ease with which the Restoration was effected. Of Cromwell's military genius there can be no doubt, or of the position which he recovered for England in the politics of Europe. But his most enthusiastic admirers

cannot speak of him as a successful statesman, or doubt that the unhappy and enduring reaction which followed his career was due to his political errors.

The reaction was singularly complete. The Church recovered all its power, and the efforts of Laud were as nothing beside the severity of the Clarendon code. Mutilation and transportation were out of fashion for theological offences, but a long imprisonment in a seventeenth-century jail was no great mercy when compared with the punishment inflicted on Prynne, Burton, and Bastwick. The doctrine of the Divine right of kings and the Divine right of the clergy became a dogma which it was heresy to dispute, instead of an opinion which it was politic to affirm. The ancient capitular and even parochial endowments of the Church, open before the Act of Uniformity to laymen, or at least to other than English orders, were now limited to those who had received episcopal ordination. Only the rights of the Crown could be infringed by no Act of Parliament, and the Sovereign of England is still a prebendary of S. David's. Two works of one of the men who suffered much from the reaction are valuable, beyond their intrinsic merits, as pictures of the age. Bunyan's Holy War is the best account that has been preserved (with of course his particular touches) of the armies who fought in the Civil War. His Life and Death of Mr. Badman is an equally vivid picture of the tradesman of the age, and, of course with a difference, shows how retail business was carried on after the Restoration.

The real victory of the Restoration remained with the nobles and country party. The Church recovered her capitular lands, which had often been purchased at their full value, without compensation to innocent purchasers. The business-like loyalty of the restored cavaliers would have employed Parliament as the means for recovering the estates which they had sold under legal forms. Clarendon however saw, or thought he saw, that these pretensions might lead to a counter-revolution, and he thwarted even Parliament, in order to obviate the risk. So the country party, adroitly

taking advantage of the popular cry, drove him into exile, though he had been, after Monk, a principal agent in the Restoration, had secured the clergy their revenge, and the landowners their ascendency. In banishment Clarendon completed his historical works, which are so true and yet so false, the type of historical special pleading, and an example which was sure to be imitated. But his history was not published till after the accession of Anne, and was certainly then of supreme usefulness to the Tories of the time. Even the disingenuousness of Clarendon was too candid for his first clerical editors, who garbled his text, and vowed that they had given it as he wrote it.

The country party did not delay their victory. In the days of King James, an attempt had been made to commute the dues of the Crown, as overlord in lands held by military tenure, into a fixed rent-charge. But the scheme broke down, owing it seems to the inclusion in it of a plan for emancipating copyholds, the dues of which should be paid out of the exchequer. It appears too that the mesne lords distrusted, and I think with reason, the integrity of that institution, especially when they remembered the theories as to the right of kings to their subjects' money which were current and acceptable at the court of the first Stewart king. Now during the Commonwealth, the feudal rights of the Court of Wards and Liveries had been allowed to drop. At the Restoration they revived, for the Crown lawyers, always during the Stewart period the determined and corrupt enemies of all private right and justice, had held that all legislation during the 'Usurpation' was void.

This transaction has been often commented on. But it was not the only act of the reactionary party. In the year after the Restoration, England suffered from grievous famine, and the country party thought they had an opportunity for permanently enforcing high prices on the people. Hence the corn laws of 1661 and 1664 permitted the free importation of foreign food only when famine prices were reached, prices

which had rarely been realised in any past experience. Fortunately the purpose of the acts was not attained, for during the greater number of the remaining years of the century, mainly owing to the development of agricultural skill, prices remained low, while, as I have said, there was a considerable and permanent rise of wages. The same Parliament also enacted the law of parochial settlement and so tied the labourer to the land, while it gave him no share in it, for it is easy to see in what interests the law was enacted. My readers will remember the indignant comments of Adam Smith[1] on this law.

I have latterly come to the conclusion that the Statute of Frauds, salutary and necessary as it was in many of its details, contained in its first clause a provision under which customary tenants, who were not provided with documentary evidence of their title, and who paid fee-farm rents for their holdings, could be turned into tenants at a rack-rent at the pleasure of the recipient of the fee-farm rent. I have long wondered what the causes were which brought about so rapid an extinction of the small freeholders, and I cannot see that this clause had a prospective significance only. Of course many of these freeholders were protected by deeds, but there must have been many persons, who had from father to son occupied land on small reserved rents, who came within the contingencies of the law, and who had no written title to show.

It cannot I think be doubted that the shameful example which the Court of Charles gave, where honesty among men and honour among women were almost unknown and invariably scoffed at, was the source of that appalling corruption

[1] Wealth of Nations, Book I. Chap. x. 'To remove a man who has committed no misdemeanour from the parish where he chooses to reside, is an evident violation of natural liberty and justice. The common people of England, however, so jealous of their liberty, but like the common people of most other countries never rightly understanding wherein it consists, have now for more than a century together suffered themselves to be exposed to this oppression without a remedy,' etc.

and perfidy on which Macaulay has so indignantly and justly commented. The exiles of the restored king's earlier years brought back, probably from their French experiences, that longing for the plunder of the public revenue, which they speedily made a fine art. It is likely too that the sight of that wholesale gambling in public business, that reckless disregard of public and private duty, which was conspicuous in the higher ranks, may have given a stimulus to the spirit of commercial gambling and intrigue which continued after the Revolution, till the sharp surgery of the South Sea Bubble and its reverses cured the propensity for a time. The malignant intrigues of Charles's courtiers had also much to do with that furious, rancorous, and lying party spirit which disfigures the public life of England long after the politics of the Restoration had become history.

And yet it is certain that the mass of the nation was sound, and still clung to those traditions of personal morality and public liberty which had marked so characteristically the first half of the century. Nearly the whole body of the Nonconformists, then so numerous both in town and country, adhered to the stern simplicity and integrity of their Puritan ancestors. The same must be true of the low or Latitudinarian clergy. Nor do I doubt that the popularity of Nottingham among the High Churchmen was due to the unblemished integrity of his political character, as well as to the consistent manner in which he maintained his Tory and High Church principles. He may have been a fanatic on the subject of occasional conformity, but he was not unfaithful to the Revolution.

I think it highly probable that if the life of Charles had been prolonged, he would have either suffered some serious humiliation, or, to use his own phrase, have been sent on his travels again. He owed much of the popularity which attached to him to the dislike entertained towards his brother, as he knew and said. Besides, the vices of kings are often more popular than their virtues. But he had slain on false charges and by corrupt judges some of the best as well

as the noblest blood in England, he had suspended Parliament, taken the French king's bribes, and had robbed the merchants by shutting up the Exchequer. He had not as yet affronted the Church it is true, and he had withdrawn from his insidious project of toleration. But he was strongly suspected of having atoned for his debaucheries by embracing the doctrines of the Roman Church, and of committing the meanness of hypocrisy while he had secretly apostatised.

I pointed out in a former volume (iv. 6) how close an analogy there is between the deposition of James II and that of Richard II. The wiser heads of the Revolution avoided the error of making the king a martyr or a state prisoner. It was probably owing to the sagacity of William that his father-in-law and uncle fled, and so saved the new settlement from anything worse than the spectacle of an abdicated monarch who was living on the bounty of the English enemy, and conspiring with hired assassins against the life of his successor.

The English Revolution achieved, among many other enduring and fundamental reforms, two which are conspicuous. In the first place it made supply depend on the will of Parliament, or rather on the House of Commons, and therefore insured the annual sitting of Parliament and its constant criticism of public affairs. It is true, as Macaulay has pointed out, it took some time to develope the doctrine of a Ministry, homogeneous in its policy and responsible to Parliament, and indeed this doctrine never became settled within the period contained in these volumes. Henceforward then, expenditure, as well as finance, became the business of the House of Commons; and there were developed from time to time, within the walls of the House itself, men of rare financial genius, such as were, for example, Montague and Walpole. In the costs of William's war, it should also be remembered, that, heavy as the burdens were on the whole nation, the landowners under the land tax paid more than their full share of the public expenditure. It is true that

the assessment, as any one can see on examination, was scandalously partial[1], and was never revised when the distribution of wealth in England had made it ludicrously unequal. But an income tax levied on one kind of property at twenty per cent. of its annual value, if it were equitably imposed, was a very serious sacrifice.

The other principal reform, already alluded to, was the formal reversal of a doctrine which had been dominant since the Reformation. It had been a universal tenet, acted on by all European monarchs, that the subject should be of the religion of his sovereign. The first people who repudiated this doctrine were the Dutch, and they maintained a war, nearly sixty years in duration, in order to give effect to it. James II was no doubt very mistaken in his policy, and utterly ignorant of how great the task was which he put on himself, when he attempted by the force of his authority to convert his people to his own faith. That he intended it, and contemplated it, as a matter requiring only time and patience, may be seen in the letters of his discomfited agents after his rebuff at Magdalen College, Oxford[2]. But James was entirely logical in his action. It was a principle which had been constantly affirmed in England as elsewhere, that the sovereign's religion should be his people's religion. The sectaries of the Parliamentary war disputed it, and the Presbyterians who began the struggle made a compact with the younger Charles under which they gave him their assistance against that enemy, whom they measured so ill, on the condition of his conformity.

The Revolution affirmed the reverse, that the monarch should be of his subjects' religion, that is should be a 'Protestant.' Parliament did not define his creed further, indeed could not. William was a Dutch Calvinist; Anne a High Church woman; George was a German Lutheran.

[1] For example, the assessment of Oxford City and the Colleges cannot be fair either relatively, or in the case of the former to other towns.

[2] See the publication of the Oxford Historical Society; Magdalen College.

Neither the first nor the last had, before he became king, been familiar with episcopacy. Both certainly conformed to the English ritual, but William's bishops and George's bishops had little in them of the policy of Laud or Sheldon.

As the nation was resolved on affirming this principle, it became necessary that they should cut themselves adrift from another tenet, that of the Divine right of kings. On the principle of hereditary right, some twenty or thirty persons in Europe were nearer the throne than Sophia of Hanover. There were the descendants of Henrietta of Orleans and the older branches of the Palatine family. But all were banned by their creed. The title of the present royal house is a parliamentary one, one valid only by Act of Parliament, the latest being that enacted after the death of the Duke of Gloucester. But the entirely secular and political character of the title which the House of Hanover enjoys is the greatest source of its strength. A parliamentary title is seen to be far more respectable than the presumption of indefeasible right.

As soon as ever the nation had repudiated the doctrine that the sovereign could define the subjects' religion, toleration became inevitable, and religious equality a mere question of time. What happened in Holland after the War of Independence happened in England after the Revolution. The Dutch in all their negotiations with Spain declined to pledge themselves that they would tolerate the creed which they resisted in the person of the Spanish king, but they tolerated it at once and of their own accord when their independence was assured. One of the first acts of the English Revolution was the Toleration Act. Instead of repealing the Act of Uniformity as they could have done, they proposed a Comprehension Act, a most unwise and short-sighted proceeding, which fortunately failed. Unhappily the new settlement was not equally generous to the few remaining adherents of the old faith, and the disabilities of the Roman Catholics were continued for nearly a century and a-half.

Even more unhappily, Ireland, with the travesty of a constitution, was visited with even greater wrongs. The malignant ingenuity of Chancellor Brodrick, and first Lord Middleton, the sole inventor of the Penal Code, was supplemented by the selfishness which destroyed the manufactures, the trade, and even the agriculture of Ireland.

Perhaps few of the English kings had less sympathy with the people over whom they reigned than William had. His very virtues, his courageous stoicism, his unwearied efforts after a high political ideal, his sincere attachment to his friends, his generous disregard of calumny and perfidy, made him unpopular. In the nature of things, and under the new settlement, it was not possible that he should exercise the same personal influence which his predecessors had, either with the whole nation, or with those who were attached to the policy or person of the reigning sovereign. The English had been the rivals of the Dutch during the greater part of the century, and statesmen like Cromwell as well as voluptuaries like Charles had inflicted serious injuries on the gallant and enterprising republic, either under the influence of commercial jealousy, or in pursuance of a corrupt bargain. But entirely unjustifiable as the war of 1672 was, it undoubtedly told in the interests of the East India Company. It was difficult in a time when trade beyond the line was hardly to be distinguished from buccaneering, for English traders to be just to their commercial rivals, and William never let it be concealed that he was a Dutchman first and an Englishman afterwards. I suspect that the jealousy of William's Dutch friends was as keen among the Whig merchants as it was among the country squires. It is not Swift only who writes lampoons on the Dutch; even the tolerant Defoe girds at them.

During the period which begins with the middle of Elizabeth's reign and ends with the accession of Anne marvellous progress had been made in several directions. Its commencement is marked by the literary activity which

has given us the masterpieces of the English language, for the genius of Shakespere was followed by the genius of Milton. The close of the period was marked by masterpieces in prose, by the exquisite English of Dryden, of Swift, of Addison. The last two of these, if they did not publish their best works in this period, matured their powers, while the middle of the century was delighted with the majestic sentences of Sir Thomas Browne.

In one department of science England made great progress. The mathematical studies of Wallis and the astronomical researches of Horrocks were followed up by numerous students, amongst whom, at the conclusion of the century, the great genius of Newton appears. But it was in this direction only that progress was made. The suggestions of Bacon, the principles of the Advancement of Learning and the Novum Organon, were not put into practice till a century and a-half after the Chancellor published his works. The naturalist still went to Pliny or Dioscorides, the physician to Hippocrates and Galen, and the architect, with better reason, to Vitruvius. More than once, when I have been puzzled with some word in the popular Latin, or in the technical terms of the building trades, I have found the key in Vitruvius or Pliny.

Shortly after the Restoration the Royal Society was founded. It was the result of a philosophical gathering which, during the Commonwealth, had its sittings, as we are told, in Wadham College, under the presidency of Wallis. It probably owed its royal patronage to the king's interest in novelties, and the liking which a jaded voluptuary feels for anything which lets him forget his practices for a time. So Charles jested with the philosophers, and Sprat, Bishop of Rochester, tells us that when the Society apologised to him for having elected a tradesman into their company, the king replied that he should be well pleased if they elected many such. On looking through the list of the fellows during the reign of Charles, I am convinced that the story can only apply to

John Houghton, apothecary, who kept a shop successively in St. Bartholomew Lane, near the Royal Exchange, and at the Golden Fleece, Gracechurch Street, and the corner of Little Eastcheap. Houghton is plainly very proud of his fellowship, for he never signs his name without the three initials. I am certainly under great obligations to this worthy tradesman, who was the first person to edit a scientific weekly paper, to publish a weekly price list of principal articles, of stocks and shares, and to discover the advantages of advertising. There is no more instructive periodical at the end of the seventeenth century than Houghton's weekly collection of husbandry and trade. He began it in 1692, and after a short interval, during which it was suspended, he continued it till near the end of September, 1703. Then, as the honest man informs us, his business had so greatly increased, that he was forced to relinquish his weekly paper. Of these newspapers, the Bodleian Library fortunately has a perfect collection.

Houghton's practice was to give a copy of his weekly sheets to any one who would keep him regularly supplied with weekly prices and weekly commercial news. He was in the immediate neighbourhood of the city markets for goods and stocks, and though I have thought it wise to print his records in a separate form, I have had many opportunities of testing their accuracy. I get from Houghton, not only corn prices, and generally agricultural produce, but also a weekly price of Bank of England stock within three weeks of the charter being signed, and of other stocks, such as the East India Company and the Hudson's Bay Company, and even the discount on Bank bills and the price of bullion, the former in 1696, the latter in 1693-6. Besides these, he chronicles weekly the foreign exchanges between London, and the principal centres of commerce in Europe[1].

In each of these weekly papers there is an essay on some subject of public interest, as agriculture, the writer being

[1] Some of these have been dealt with in my 'First Nine Years of the Bank of England;' University Press, Oxford.

chiefly indebted to Worlidge, a farmer living at Petersfield in Hampshire, whose work I shall comment on: on local industries, some of which, as the manufacture of salt from brine springs, was being rediscovered; on manufactures, such as those of iron, woollen goods, and the like; but particularly on physical science as it was understood in those days. He was intimate for example with Halley the astronomer, and gives an account in one of his papers of an ingenious method by which this eminent person calculated the area of England in acres[1], the resultant error, considering the exceedingly primitive character of the process, not being very surprising. But his physical science and chemistry have progressed very little beyond the stage of occult causation which Bacon denounced, and very little into that of observation and analysis which Bacon commended.

The people of England, as I have said above, passed through a period of severe discipline during the time that they were accommodating themselves to the experience of altered prices. I have good reason to believe that it was not till the accession of James that rents began to move upwards, except in so far as owners were able to take advantage of changes of occupancy, at that time, I believe, events of rare occurrence. The four corporations for which the Act of 1576 made provision, were, except in the case of the Oxford Colleges, not very eager to exchange the rents in kind which they had imposed upon their tenants for rents in money interpreted in two kinds of arable produce which the statute prescribed.

In these corporations, particularly in the two great schools, the system of rents in kind was convenient, because the

[1] Halley took the largest map of England and Wales which he could get, that of Adams, measured it from sea to sea at various points, and so calculated the gross area of the surface. To discover the superficies of the several counties, he carefully cut out of the map the several divisions, dried the pieces of paper, and weighed them exactly. He made allowance then for rivers, and distributed the acreage according to the quantity in each of the parts. The reader may find the calculation in the twenty-fifth number of the Collections for Husbandry and Trade. Halley makes the gross area 39,938,500 acres, while in reality it is 37,324,883.

consumption of the establishment was very large, and the numbers to be maintained out of the revenues bring a known quantity, the rents in kind could be easily calculated in reference to the average wants of the Corporation. I am disposed to believe that they finally accepted the provisions of the statute, because it fixed the money value of the rents in kind at the highest price in the market of the day, while there was no certainty that the rents in kind would be of the best produce, or that if the best were stipulated for, that the best when pay-day came would or could be forthcoming[1]. By adopting the statute therefore, the College would get its rent in the best, and in money, while it could purchase at lower prices in the market, for its domestic wants.

The thrift which was in the first place a necessity, became a habit. It is true that no records survive of the manner in which a yeoman or a labourer lived. But in these volumes, though the main facts are extracted from four localities, and from certain corporations in two of these localities, I have been able to gather some information as to the expenditure of the Spencer family at Wormleighton and Althorp, of the Pembroke family (Herbert) at Worksop, and of some other persons whose fortunes were smaller. But it would not be difficult from the prices recorded here to give an account constructively of how incomes could be spent in the necessaries and conveniences of life.

The most considerable corporations would have a gross income from all sources of from £2500 to £3000 a year at about the middle of the seventeenth century. But there were large outgoings in the collection of this income. As a rule indeed, the corporation did not entrust its business to subordinates. It was the duty of the head and of the officials to visit the estates, to collect rents, and to draw up

[1] In 1665–6 the bursars of S. John's College, Cambridge, taking the whole of their estates, note that their wheat rent amounted to £536 13*s.* 8½*d.*, the 'old rent' being only £139 13*s.* 6½*d.*; and that their malt rent was £91 16*s.* 3*d.*, the old rent being £27 4*s.* 6⅝*d.* 1665–6 was a cheap year.

an account of their receipts and expenditure, this being annually engrossed by a competent scribe and as regularly audited. In other words, the head, whether Warden or Provost, and the Fellows, were not only to be men of letters, but to be men of business, who should, in return for their maintenance and allowances, look sharply after the interests of the societies whose affairs they administered. Thus, at Winchester and Eton a Warden and Provost with Fellows were added to the great school foundations which Wykeham and Henry the Sixth, the latter exactly following Wykeham's model, founded. The schoolmasters and ushers could not be spared for the necessary business of the college. The Warden or Provost and Fellows were to attend to the property of the society.

Now the first, and of course the greatest, charge on the foundation was the maintenance of its inmates, all of whom were to be provided for out of the revenues. These were the head, the fellows, the scholars, the charge of divine worship, and the servants; though in the schools, if the rents fell off, the scholars were to be the last to go. Then come building charges and repairs, and a mass of outgoings generally grouped under the head of Necessary Expenses. The satisfaction of these items absorbed from three-fourths to four-fifths of the income. Then come the money allowances, fixed and small, the clothing of the principal persons in the foundation being early commuted to another money allowance. The residue was saved, and remained in the custody of the bursars, being a liability of theirs till the audit was over and their successors received the balances.

In early days, and generally to near the middle of the seventeenth century, the beneficiaries of a corporation had nothing beyond their statutory allowances, except in cases where the college permitted non-residence, and, as was done for example at Merton College, voted some of their fellows allowances from the college funds for foreign travel and foreign service. It was by these means originally that Bodley, Savile, and Wootton were employed in diplomacy by Elizabeth.

The funds accumulated in the strong box of a fairly wealthy corporation were probably large, though it is quite possible that they might have been the savings of many years. This is curiously illustrated from the domestic accounts of King's College, Cambridge. The accounts of this college give generally, when the document in which they are copied out is what is called the Mundum Book, what the receipts of the college are for the year. But they do not give the accumulations. It is very possible that the knowledge of this amount was entrusted only to a few persons.

Now when the troubles of the Parliamentary war were followed by the victory of the army, the royalists suffered severely in the visitation of both Universities. They were mainly evicted, either for original 'malignancy,' or for refusing to take the Engagement. In accordance with this discipline of the victors, King's College, Cambridge, was put into the hands of an intrusive body of fellows. What accumulated treasure they found I have not discovered, but the annual audit of the college bears testimony to the spoliation. In 1647 they divide the comparatively modest sum of £828; in 1648 they took £2624 16*s.* 8*d.*; in 1649 £4550 2*s.* 4*d.* They had now I suppose drained the greater part of the college treasure, and had left not much more than that which it was absolutely necessary to keep in hand, for in the next two years they got no more than £628 17*s.* 6*d.* and £505 5*s.* 5*d.* But in 1652 they divided £2093 0*s.* 2*d.*, which I suspect nearly exhausted the stock, for in 1653 they appropriated only £533 17*s.* 2., and nothing during the next two years. During the remaining five years of their rule, they absorbed on an average £1057 15*s.* 8*d.* Their example was followed by the restored fellows or their successors, who found themselves in possession of a surplus during the next ten years of £7982 1*s.* 10*d.*, which they conceived available for division. But for three of these years there is no note of a division, and if we conclude that in these years income and expenditure were nearly balanced, and there was nothing which

could be safely divided, the average of the seven years is £1140 6*s*., which does not materially differ from the annual dividend of the Cromwellian fellows[1].

I have dwelt on these facts, and similar facts could be given from the annals of other corporations, not only because they illustrate a notable change in the traditions of academical corporations, but because they throw light on the way in which prudent persons hoarded during the seventeenth century. The intrusion of the Cromwellian fellows was a rude interruption in the habits and probably in the secrets of collegiate life. The expelled fellows do not seem to have considered that the accumulations were their own property, as some theorists of our time ingenuously assert, or to have secured them before they were dispossessed. But no such break occurred in the habits of those who could save, particularly in the great body of those members of the middle classes who I am persuaded clung in secret at least to the principles of the first Revolution, the farmers in the country and the tradesmen in the towns. I do not believe that the vices of the Restored Court induced anything but disgust on the mass of the people, and I am convinced that a good deal of the wealth which was subscribed so freely and so continuously during William's reign came from the hoards of those who had kept up their old traditions of economy during the days of the last two male Stewarts.

One notable fact in the economical history of the seventeenth century is the large amount of waste land which existed, and the use which it appears was made of it. My reader will find occasional records of the enormous amount of wild animals, chiefly winged game, which is purchased by wealthy persons. These purchases do not include deer, which seem to have always been considered private property, or at least preserved game, and to have been kept in forests, chases or

[1] It is remarkable that, during the Parliamentary war, Winchester and Eton were not disturbed at all, though Winchester lay on the line of the conflict and Eton very near it.

parks, nor hares, which were I conclude also game. But every other kind of winged fowl, which we should call game, is captured and sold, as well as a host of wild birds, which do not seem at present to come into the market. Thus in one month, November, of one year (1622) I find woodcocks, plover, green, grey and bastard, larks, snipe, fieldfares, blackbirds, hadicocks, besides rabbits. In the summer, quails and pigeons are common. At Winchester the fellows buy all such birds, and widgeon, teal, wild ducks, pheasants, and partridges in abundance.

Among the numerous works which were published by Gervase Markham, on whose contributions to agriculture I shall have to comment presently, is one entitled Hunger's Prevention, or the Whole Art of Fowling (1621). The author dwells on every known mode of capturing wild fowl, but never hints that the pursuit was the exclusive pleasure or privilege of the landlord or wealthy owner. Now if it be the case that a large tract of country was open to all comers, in which they could decoy or shoot birds, it is obvious that one ought to take these bye-products of industry into account in estimating the condition of the people. It was not till I came across the domestic accounts of nobles and rich corporations that I found out how notably this occupation of fowling was stimulated by the expenditure of such persons. Their supplies did not come from their own servants, as the price proves.

Among the accounts which have contributed to the facts of these volumes is that of Mr. Master, a landowner at Yotes Court, near Chislehurst, in Kent. Master inherited some city-won wealth, was a minor for some time, had been brought up in Puritan habits, was sent to Cambridge, where his account gives some curious details of academical life, and finally settled on his patrimonial estate. His property seems to have been worth, during the Civil War and the early years of the Restoration, from £300 to £400 a year, and the particulars of his domestic life show how a man could live in ease,

and even in some luxury, on such an income[1]; for Master keeps a stud, and a considerable establishment of servants. Besides, Puritan as his bringing-up was, he spends a good deal of money on his dress and his wigs.

Now I have it in my power, owing to the kindness of Lord John Manners, who procured me the information from the Belvoir archives, to interpret the modern meaning of a landed estate of from £300 to £400 a year. I have been supplied from this source with the rentals of twelve estates or manors at different periods from before 1692 down to 1850. The area of these twelve estates is 17,837 acres in 1692, and 20,375 acres in 1850, the difference being mainly due to enclosures. In 1692, the rental was 3*s.* 9¼*d.* an acre. In this year another valuation is made, and the rental rises to 4*s.* 1½*d.* In 1799 it is 19*s.* 3¾*d.* an acre; in 1812 it is 25*s.* 8¾*d.*; in 1830, 25*s.* 1¾*d.*; and in 1850, 36*s.* 8*d.* Now it is well known that the Dukes of Rutland have been, traditionally, particularly indulgent landlords, as is illustrated by the fact that so slight a rise is made in their rents between 1799 and 1812, when corn was almost always at famine prices and the Bank note was depreciated, and that there is a remission in 1830 to a considerable amount in the case of certain estates. Still, under contracts and valuations which were I believe most favourable to the tenant, the rise in rent is nearly tenfold in little more than a century and a-half.

The Duke's agent, who supplied me with these figures, or rather the figures from which I draw my inferences, informs me also that three of the twelve estates are red marl, three are 'heath' lands, five are strong lands in the Vale, and one is mainly pasture. It is on the second of these that the greatest rise has taken place; on the third, the strong lands, that the least rise is discoverable. The rise on the pasture estate is also above the average. I should conclude therefore that, as a rule, the rental of an estate at the date of the English Revo-

[1] The account is printed partly in the Kent Archæological Society's Journal. The Editor of what is already published kindly lent me the MS. to examine.

lution was about a tenth of that which it attained to a generation ago, and that this calculation may be made to apply to incomes derivable from land with complete accuracy, and as far as the purchasing power of incomes has to be interpreted from whatever source to such incomes with tolerable correctness[1]. In our day, then, Master's income would be from £3000 to £4000 a year. Of course, in making this estimate, I am dealing with agricultural land only. The rise in the neighbourhood of Chislehurst, where Master lived, is probably far greater than my formula suggests.

The history of the seventeenth century has always been peculiarly fascinating to the student of English history. At no time during the long annals of our nation has individuality been so marked, and so conspicuous. The great men and the bad men of the century, and some were at once great and bad, are far more familiar to our minds and memories than those of the eighteenth are. They are concerned with far more stirring action than those of Anne's and the Georges' epochs were. They struggled for far greater ends than the statesmen of the eighteenth century did, whom the hateful impulses of the later Stewart ministries had permanently infected and perverted. They may have been violent, but they were never sordid. There is no taint of self-seeking in the political and military heroes of the pre-Restoration epoch, but there is hardly one of those who took part in public affairs in the post-Restoration time who was not more or less corrupt. The men of the earlier age fought for principles, those of the later had no higher aim than personal advantage under the guise of party struggles. Even the invective of the two periods is different. In the earlier time it was indignant, in the later malignant. You cannot find in the first sixty years of the seventeenth century such bad men as Shaftesbury and Leeds, Lauderdale and Buckingham. The judges were timid and

[1] In 1699, Davenant, quoting Gregory King, makes the average rent of arable land 5*s.* 6*d.*, of pasture 8*s.* 8*d.* The Rutland rents are far below this, and are from land of good quality; vol. ii. p. 216.

servile enough, but the judicial bench was never occupied by such monsters as Scroggs, Jeffreys, and Williams. The army of the Cavaliers never bred such ruffians as Claverhouse and Mohun.

Puritan England could never have bred or have been deceived by such men as Oates, Bedloe and Dangerfield, Narrative Smith, as his contemporaries called him, and Fuller. Puritan England would never have endured the harem of the restored king, and the dukes which it bestowed on the English parliament. No royalist of the pre-Restoration age would have stolen the goldsmiths' money in the Exchequer, as the brigands of the Cabal did. No English patriot of the earlier period would have taken bribes from France and Spain as Sidney did from Louis. Arbitrary and violent as Strafford was, there was nothing mean in his political offences, but there was always something mean and sordid even in the best acts of the post-Restoration statesman. We owe this degraded morality, a morality which infected England for a century and a-half, even if it has disappeared in our own day, to the Court of Charles the second. We are told, with a unanimity which probably implies conviction, though it may not enshrine a truth, that monarchical institutions have developed national unity. But from time to time, nations have paid a heavy, an over-heavy price for a benefit, which is after all a problem.

I have already referred to Laud rather as a politician and a man of letters than as a churchman. In the latter capacity, he is a prominent feature in the great drama of the one hundred and twenty years of which this volume treats the economical side. In this period, ecclesiastical events are forced into great prominence. They had an influence, though only a dying influence, for twelve years after my volumes cease. It would not be proper, even in a work on economical history, to omit all reference to the great movements which characterised the last twenty years of Elizabeth and the reigns of the first four Stewart princes.

At the beginning of my period, then, Elizabeth's Anglican

policy was in full force. Conspired against by Philip and the dupes of Mary Stewart, the Queen was conceived to be supremely useful to the English commonwealth, and therefore was exceedingly powerful. By this time, the Catholics, though cowed, were not generally disaffected. The Puritans, though treated with severity, were well-disposed towards the Queen, who thought her administration of affairs above criticism, however contemptuously she treated those whom she employed. The great apologist of the Anglican Church, Hooker, was far from setting episcopacy on the pinnacle of divine authority. Luther and Calvin were not to be repudiated, though episcopacy with the former was a farce, with the latter an abomination. The ministers of foreign reformed orders were not to be rejected, or even slighted. Judah was not to vex Ephraim, nor Ephraim Judah. Nor did the ritual of the reformed Anglican Church bear any resemblance to that of the pre-Reformation age, nor even to that which modern ritualists would fain have us believe. I have gone through the accounts of every Oxford college which had a considerable foundation, and of many whose resources were scanty. In none have I found that any expense beyond the barest and meanest charges were incurred on the chapel service. The colleges buy no vestments, lay out no money in wax lights, incur no cost for incense, cut down the Mass to five or six communions in the year. The cost of the chapel used to be a serious item. It was a remunerative outlay. Now it is only a private worship, and it becomes the most inconsiderable head in the college expenses. Such negative testimony is surely more conclusive than unproved speculations. There is a brief space during which in a few places a more ornate ritual is enforced or adopted. I shall refer to this hereafter.

After the death of Mary Stewart, after it was seen that her son was not disposed to resent the injury, and after the ruin of Philip's armada, the Puritan party, in and out of Parliament, became bolder and more defiant. As the nation felt its strength, it became less submissive to the Queen and to her

administration. It began to show some signs of that spirit which was to develope the events of the Parliamentary War. Where Elizabeth could be firm she was firm, where she could not be she yielded.

During the greater part of the reign of James, the policy of the Court was to favour Calvinistic doctrine, under strictly Episcopal forms. But towards the conclusion of his reign, the king displayed a liking for the new school of Laud. This school was hostile to Romanism, but favourable to doctrines which were believed to be in many particulars identical with those of the Roman Church. The new movement was supported by Charles, but was detested by the laity and a considerable section of the clergy. It was part of Laud's policy to enforce a more ornate ritual, especially in the Universities, in one of which he was Chancellor, over both of which he claimed general visitatorial powers. But I have only found two colleges which submitted to his instructions, Corpus in Oxford, and St. John's in Cambridge. In these two, and in these two only, for a few years an ornate ritual was adopted—copes, wax candles, and other furnitures. Just before the outbreak which for a time destroyed the old hierarchy, Laud was assured that Puritanism was extinct; and he perhaps believed the assurance.

The Long Parliament was distinctly Puritan, and ultimately, though it is not quite certain that it was so sincerely, Presbyterian. It was strong enough to put down the episcopate, but not strong enough to establish another system of Church government in its room. Now there arose a Babel of sects, each striving for ascendency, and none strong enough to achieve ascendency. Selden, who assisted and mocked the partisans of S. Stephen's, and the zealots of Westminster Hall, a few yards off, said that Parliament tired him with their new law, and that the divines refreshed him with their mad gospel. But if the caustic and critical jurist described the assembly in Westminster Hall in this manner, what would he or any one of sense have said of the new sects which were coming to the front, and

rivalling each other in extravagance and offensiveness? There are many organisations of Christians, now staid and decorous, who offended the common decencies of life by their grotesque fanaticism, notably the Quakers. There were sects whose frenzy was a danger to all government, sects whose tenets were a menace to all morality, such as the Levellers and the Familists. Now the theory of government in those days by no means accepted the rights of individual conscience in matters of belief. It held that it was the duty and privilege of the state to define the religion of the subject; and if the policy of the commonwealth proscribed episcopacy, it did so because it conceived that form of Church government to be scripturally unsound and politically mischievous. It certainly did not adopt Presbyterianism because it wished to conciliate the Scotch, especially after Dunbar; and indeed the Presbyterian party had a good deal to do with the restoration of Charles.

Whatever may now be thought of the Clarendon code and the Act of Uniformity, the historian who watches, as best he may, the tone of thought which prevailed at the time, will see in this memorable legislation the opinion which was then current that the state must put an end to religious chaos. The code was as severe and harsh as the discipline of the old High Commission Court, and the code was not allowed to sleep. The Act of Uniformity, with the revised Prayer-book appended to it, contained innovations which, in a less excited and less reactionary time, would have been seriously criticised; and the revision of the Prayer-book was carried out by means which would have been strenuously resisted by a past generation of statesmen, even by the royalists of the Civil War.

Parliament designed to revise the Prayer-book itself. This is clear if one inspects the Journals of the House of Commons for July 3 and July 9, 1661, the House being prorogued (the Journals say adjourned) on July 10th. During the recess, the king invited the two Convocations to revise the Liturgy, and to report to him, a proceeding which would have been most emphatically resented a generation before, as an utterly unconstitutional course

of action. The Lords accepted the revision, and sent the bill and the book on to the Commons. Here a motion to debate the subject of the alterations made by Convocation was only lost by six votes (96 to 90), and the House unanimously voted that 'the amendments made by the Convocation might have been debated, by the order of this House[1].'

Under this revision, the English Liturgy was modelled in the direction of passive obedience on the part of the devout subject, and of absolute power on the part of the king. The Act of Uniformity confined all benefices in the Church to episcopally ordained clergymen. Before the Reformation all dignities in the Church, and even benefices, below the episcopal rank, could be held by laymen, or by divines of foreign orders, and were frequently so held, not without considerable public scandal in certain cases. Between the Reformation and the Act of Uniformity, the clergy of foreign Churches, not episcopally ordained, were admissible, and were admitted to these endowments, and very possibly laymen. At any rate, it was quite within the competence of the Crown to dispense with all clerical conditions in the case of a presentee. It is I repeat a curious illustration of the fact, that the admission to Anglican orders was before this famous Act no condition precedent to such a benefice, that the sovereign is now, and has constantly been, a prebendary of S. David's Cathedral. Parliament, which could alter the conditions under which the subject should be entitled to ecclesiastical preferment, could not interfere with the rights of the Crown, unless by the sovereign's express sanction, a form which survives to our own time. The capitular body of S. David's supplies an illustration of the qualifications for ecclesiastical preferment in the days before the Act of Uniformity. Perhaps no Act of modern legislation has so completely isolated the English clergy as this has. It has made them a distinctly separate class, and fostered a theory,

[1] The views entertained by Parliament as to the competence of the Legislature to deal with doctrine and ritual in the Church of England are strikingly illustrated by a protest of April 5, 1689, when the Comprehension Bill was lost.

undoubtedly contrary to that which was adopted at the Reformation, that their order has something mysterious and abiding in it [1].

Henceforward, and till the development of Latitudinarian principles, soon after the accession of the House of Hanover, ecclesiastical questions are as hotly discussed as political controversies. The tenets of the restored Church are entwined with the principles of the restored monarchy, and the unqualified obedience of the layman was claimed by the Church as emphatically as the unqualified obedience of all subjects was claimed by the Crown. It is true that the Court did a great deal to shock the feeling to which churchmen and statesmen appealed, that the debates on the Exclusion Bill led to a suspension of the constitution, and that, almost out of a clear sky, came that tremendous storm which swept James and the Roman Catholic element of his family suddenly and permanently from the throne. But the effort was almost instantly followed by reaction. The expulsion of James was a national effort. It was necessary that some concessions should be made to the dissenters, who had withstood the temptation of the Indulgence, and rallied to the Church against what was believed to be a common danger. But when the danger was over, the intolerance of the clerical party revived. Fortunately, the schism of the nonjurors, which soon became ridiculous, weakened the position of Anglican exclusiveness. But the Act for preventing the growth of schism and the Occasional Conformity Act are illustrations of how bitter the clerical temper was, and how active was its propaganda.

Owing to these causes, the guiding principle which the founders and defenders of the English Revolution adopted was, that while forms of government may be retained without change and with great advantage, though King, Lords, and Commons and an Established Church, with a constitution entirely dependent on precedents for its continuity and its authority,

[1] The best place from which my reader can get a clear idea as to what the theory of the ecclesiastical status was, before the Restoration, is in Selden's Table Talk.

may be recognised as the essential and invariable features in the new institutions, the only change which should be admitted was that affairs should be invariably administered under the control of Parliament. Statesmen at the end of the seventeenth century were alive to the scandalous anomalies of the system of Parliamentary representation, and had no more liking for Old Sarum and Gatton than their descendants had four generations later. The well-meant but ill-directed efforts of the Commons against Parliamentary corruption and electoral bribery were as frequent as they were later on. They suspected the pretensions of the House of Lords, so novel and so arrogant, as a section of politicians does in our days. But it seemed dangerous to alter forms, especially if it were possible to put a new spirit into the old forms. Hence the shape of the English Parliament, full of anomalies as it was, remained unaltered for nearly a century and a-half after the Revolution.

The transfer of the executive from the king and his almost irresponsible ministers to a responsible ministry and to Parliament, especially to the House of Commons, opened a way to an important and novel departure in the administration of public business. For nearly twenty years indeed, Parliament to a great extent undertook, and very unwisely undertook, many of those functions which a maturer experience has conferred on the government, and the powers which a government was bound to exercise were constantly crippled by the fact, that ministers clung to office after they had ceased to possess the confidence of Parliament. This state of unsettlement is commented upon by Macaulay with his usual acuteness, accuracy, and clearness.

Now among these new duties which Parliament undertook was that of regulating trade. In a sense the exigencies of the revenue indirectly led to the parliamentary control of many industries, and not infrequently to their serious injury. But I am referring to foreign joint stock trade and to the trade in money.

From very early times the English sovereigns had claimed

to confer rights by charter on trading companies, or to annul them. Thus the privileges of the Hanseatic League in London were bestowed, continued, or suspended by the charters or proclamations of successive sovereigns, till the Alderman and Merchants of the Steelyard were finally extinguished by Elizabeth. The Russian and the Levant Company, the East India, the Hudson's Bay, the African Companies were created by royal charters; and apparently for a long time the authority of the Crown in granting these monopolies was unchallenged. But when, especially in the case of the East India Company, the profits of the trade were very great, and huge fortunes were soon piled up by the lucky shareholders, and the Company became a power in the state, and even in Parliament, attempting successfully to corrupt members of the legislature and to shape the policy of ministers, it was impossible to prevent interlopers, and inexpedient to permit these chartered companies to exercise high judicial powers over British subjects. They too who were excluded from the India trade, because they were unqualified, began to argue that no power except that of Parliament could limit the mercantile rights of Englishmen. The growing feeling on the subject of these chartered companies is early illustrated by the action of the House of Lords in Skinner's case against the East India Company, in which the Lords took a line which was afterwards accepted; though it may be well doubted whether they were justified in entertaining Skinner's complaint and enforcing their jurisdiction by fine and imprisonment.

In 1698, Montague made the exigency of a loan the plea for creating a New East India Company with a parliamentary title, and thereby to confer on it a legal monopoly. I shall comment on this Act in a later part of this work.

But the capital venture of parliamentary action after the Revolution was the creation of the Bank of England in 1694. At first the law merely gave the subscribers to a government loan the privilege of carrying on a joint stock bank. But less than three years later, the Legislature conferred on a

bank a distinct monopoly of joint stock banking, and constituted that remarkable institution, which has had so singular and so honourable a career in the annals of finance. The nature and plan of this undertaking will be briefly commented on when I deal with the question of the currency[1].

It is clear however that until Parliament had claimed to regulate trade and supersede royal charters, or at least to confer powers by Acts which were more substantial than any royal charter could grant, and till this right was recognised and acknowledged by the executive, it would not have been possible for a joint stock bank to be founded, much less that it should be gifted with a monopoly. For the English system of banking under the form of goldsmiths' notes had already been developed, and to those persons the Bank would have been, as it afterwards was, a dangerous rival. But the project of a Bank of England, to be founded on the lines of the famous Bank of Amsterdam, was already in the air. I have found at least two pamphlets during the time of the Protectorate, one addressed to Oliver himself, and one to Oliver and his Parliament, suggesting the establishment of an institution which, the writers urged, would be so beneficial to the trade and the credit of the country.

[1] I have dealt with it at length in my work, 'The First Nine Years of the Bank of England.' 1887.

CHAPTER II.

AGRICULTURE IN THE SIXTEENTH AND SEVENTEENTH CENTURIES.

THE principal authorities for the condition of English agriculture during the last eighteen years of the sixteenth century and the whole of the seventeenth are Norden, Markham, Blith, Vaughan, Plattes, Hartlib, and Worlidge. There are also many monographs bearing on this industry in particular localities, and many suggestions that the disputes between landlord and tenant, with the risk which the latter ran by the former appropriating his improvements and making him pay rent on his own outlay, might be met by following the example set in the Low Countries. Tusser, whose popularity had been and remained very great, died in 1580.

Throughout the whole of the seventeenth century, writers on agriculture complain that the progress of English husbandry was greatly hindered by the rapacity of landlords. It seems that what they recognise is that tenants for terms of years or for freeholds on lives, a favourite form of letting land three centuries ago, were discouraged from making improvements, which might be very remunerative to them, by the exactions of landowners on the expiry of the lease, or on the renewal of a life interest. The form which this reputed exaction took, was the demand of a considerable fine from the tenant on renewal. Of course this fine could not

exceed the loss which the tenant would suffer from dispossession, though this in the case of an improving or enterprising tenant would be far more considerable than in that of another who was, perhaps against his own interest in the end, careful not to put himself into his landlord's power by extraordinary outlay of a permanent or irreclaimable kind.

In an earlier volume[1], and again in another work[2], I have commented on the testimony given by writers of the sixteenth century as to the practice of inflicting a penal rise in rents, or an excessive fine on renewal, in citations from Fitzherbert's treatise on Surveying and Latimer's Sermons. But I think that during the latter part of the sixteenth century, as well as in the earlier part of it, this enhancement was limited by the tenant's fear of the loss of dispossession, and not by the competition of occupying applicants. Of course this fear has been used as a powerful and effectual engine for raising rents from the days of the earliest witness to the practice down to recent experience, and the fact that this very natural and just alarm has been utilised for the landlord's purposes, is one of the principal factors in the distressful condition to which agriculture in England is now (1886) reduced. But there is not much reason to believe that the competition of farmers against each other for occupancies was an early cause why rents were enhanced. On this subject we get fresh and further information from Norden's work, entitled 'The Surveyors' Dialogue[3].'

Norden, who dedicates his work to Robert Cecil, first Earl of Salisbury of that family, seeks to meet and dispel the prejudices and suspicions which the husbandmen of the age felt against the exercise of the surveyor's profession, and certainly his first dialogue, between himself and a farmer, states the dislike of the latter to surveyors with considerable plainness. They are charged with prying into the farmer's affairs, with inciting

[1] IV. 94.

[2] 'Six Centuries of Labour and Wages,' p. 445.

[3] First edition, 1607.

the landlords and lords of manors to take advantage of him whenever an emergency may be laid hold of, with being checks on activity in agriculture, and with the creation of a permanent feeling of distrust between lord and tenant. Nor is the criticism, or prejudice, very successfully met, by supercilious rejoinders on the part of the surveyor, or by insisting that the lord of the manor was to his tenants what the king, on the passive obedience theory of the time, was to his subjects. The surveyor is much more in the right when he tells the tenant that the lord is perfectly justified in looking after what is legally and morally his own, and that as he will get information as to what are his rights and his powers, it is desirable that he should rather employ the services of a responsible man of business, than those of an adventurer and eavesdropper[1], who wrongs the tenant in order to curry favour with the lord. He also says that, to a great extent, the tenant is himself the cause of the exactions levied on him.

When an explanation is demanded, he says that the madness, or emulation of tenants in bidding against each other for new occupancies, has astonished him, and explains the charges put upon them. 'And,' he continues, 'should any that is in authority in this case (who in duty is not to hinder the lord) or the lord himself inhibit such hot spirits to climb as high for the lord's advantage as the ladder of their own will, or supposed ability, will reach?' 'I should think it a greater madness for a lord wilfully to refuse what is so voluntarily offered, and so willingly given. And who is the cause of raising rents and fines?' It seems that the manner in which lands were let was by 'proclamation in open court,' to which competitors were invited. Norden is the first author who has come to my notice who supplies the fact that competitive rents were beginning to be known.

The farmer then complains that excessive fines are levied on customary inheritances, and quotes cases within the manor

[1] In page 14 of Norden's work, some curious evidence is given as to the custom of people advertising themselves on posts in the streets of London.

where he dwells of a rise on those occasions from a mark to twenty pounds, and says that the surveyor 'is a man of that reach, that men employ him to overreach others.' To this the surveyor answers that the price of corn has risen to its present pitch, and that the rent of land had risen, because of the competition (he calls it the emulation) of farmers to get the profits of so great a rise, and quotes Stow as to low prices in the days of Henry the Sixth[1]. He further alleges, when he is invited to consider the impoverished condition of the farmer at present, that the husbandman is himself to blame, because he has abandoned a frugal and austere life for one of comparative luxury and extravagance.

The price of corn had no doubt greatly risen about this time. Between 1606 and 1618 (in which year the last edition of Norden's work was published) wheat never fell below 30*s.* a quarter, and in five of the thirteen years it was above 40*s.*, in one of them going above 50*s.* Now a rise in the price of agricultural produce does not by any means necessitate a rise in the rent of land, for it may be due to deficient harvests, and it may be accompanied by a corresponding cost in production. The rent can only rise by the legitimate operation of competition, when the cost of production is so diminished as to make the profits of the husbandman abnormally great. I conclude therefore that these profits had materially increased, and were obvious to those who wished to occupy land, and that in this competition we see that agriculture had made notable progress during the later part of the sixteenth century.

The next three dialogues in Norden's book deal mainly with the art of scientific land measuring. But the last gives us some information as to that part of agriculture which deals with the improvement of land. The surveyor discourses of the proper way in which land should be drained, and refers to successful experiments made by Captain Lovell and Mr.

[1] Stow, according to Norden, speaks of wheat sold as low as 1*s.* a quarter at Royston in this reign. I have not registered such a price, but have found it at 2*s.* in 1405 and 1444.

Englebert, in the fen lands of Lincoln, Cambridge, and Norfolk. He then mentions meadow lands of surpassing excellence in England, as for instance at Crediton and Welshpool; explains how water meadows may be laid out, and land, useless for other purposes, can be utilised for ozier beds. He tells us that hops are grown profitably in Suffolk, Essex, and Surrey, and that the cultivation of the carrot had become common in Norfolk, Suffolk, and Essex upon sandy soils. He counsels the planting of fruit-trees in hedgerows, and speaks of the Kentish orchards, especially at Feversham and Sittingbourne, as profitable. He tells us that some husbandmen are resolute in plodding on in the course of their forefathers, and neglecting the new lights of experience; dwells on the necessity of planting forests, and mentions incidentally that the Sussex furnaces (140 in number) and the Surrey glass-houses are gradually consuming the woods. He strongly advises the making of fish-ponds, and asserts that London will always buy the produce of these ponds, while he insists on the wisdom of marling land, as was done in generations before his time and is now strangely neglected. The mixture of lime and sand with clays, the densharing of grass, the spreading of river mud over sandy ground, a practice in Hampshire and Middlesex, are commended, as also the employment of London soil on land at Chelsea, Fulham, Battersea, and Putney.

But Norden dwells with great satisfaction on the agriculture of the western counties, particularly at Tandean, near Taunton in Somersetshire, which he calls the Paradise of England. Here he says the landowner, the farmer, and the labourer are equally diligent in the due cultivation of their land, which is indeed naturally fertile, but is admirably and successfully cultivated. Sometimes, he says, the produce of this land rises to four, five, six, eight, even ten quarters of wheat to the acre. He also praises the soil and the agriculture of Ilchester, Long Sutton, Somerton, Audrey, Midlesey and Weston, the sheep-farming of Dorset, Wilts, Hants, and Berks, and states that the very trampling of a sheep's hoofs adds fertility to

corn-land. Norden concludes his book with some general advice, and some pious exhortations, for in his day all writers illustrated material business with scriptural quotations.

I have so far dealt with Norden's book, because it contains a good deal of early information about the start which English agriculture was making, and, as I think, of the influence which the husbandry of Holland was exercising over English agriculture. It is noteworthy that the cultivation of winter roots was undertaken first in those parts of England, the Eastern Counties, which had been for centuries in close commercial intercourse with the Low Countries. But the Surveyors' Dialogue has a further interest, in that it frankly admits how unpopular these agents of the landlords were, how necessary it was for the practitioner of the art to defend his existence, and how the fears of the farmer, which Norden calls blind and brutish, were to be illustrated, perhaps justified, by the perfidious advice which generations of these professional people have given to landowners.

Gervase Markham[1], who enjoyed a high reputation as an agricultural authority for more than half a century, and a respectable memory till the close of my period, was a person of very varied accomplishments. He was a poet and a dramatist, in his way, a leech and a naturalist, a politician, a traveller, a sportsman of great experience, a man who seems to have had some knowledge of military matters, but who claims above all to have been a practical and scientific agriculturist. The first edition of his work, 'The English Husbandman,' was printed in 1613, but the book was very often reprinted, and during the first half of the seventeenth century, and indeed through the whole century, enjoyed a high reputation.

The early part of Markham's work is occupied with a statement as to how the husbandman should build his house, a quaint ground-plan of the structure being given. I have seen many old farm-houses built on Markham's plan, and I remember one particularly at Besils Lee near Oxford, which must

[1] Markham was born in 1570, and is supposed to have died in 1655.

I think have been due to his suggestions. He then describes the parts of the plough, and the several ploughings which land should undergo in order to render it fit for husbandry, or, as he calls them, 'Ardors,' the various kinds of soil and their requirements, and the different manures with which they should severally be treated, the best land being what he calls 'black clay,' and the various kinds of ploughs which experience has shown to be best for each soil. He discusses the two kinds of harrows, one the smaller instrument with teeth of wood or iron, the former principally for clay soils, another the larger, always with iron teeth, for ground which is apt to bind. On the strong lands he grows wheat and beans, on the lighter soils barley, on the lightest oats. Sandy soils he says are fit for spring or March rye, peas, vetches, or lupins. Peas he says are made into bread in Leicester, Lincoln, and Notts, and elsewhere, and are particularly useful in long sea voyages. And he adds generally that there is no day in the year, 'but the Sabbath, but it is necessary that the plough be going.' The two kinds of clay, black and gray, and the two kinds of sand, red and white, are treated by Markham as simple or uncompounded soils. The mixt soils are gravel with small pebbles, as is common in Middlesex, Kent, and Surrey, and gravel with hard flints, as in Herts, Essex, and other counties. These soils have been rendered moderately fruitful by labour and skill. Markham excuses the details with which he treats these several soils, for the reason that husbandry is so traditional, that if a farmer quitted the district where he was prosperous because he was familiar with it, and cultivated another district which was new to his experience, he would certainly incur considerable loss, if not certain ruin.

He describes a way of setting wheat and other corn by hand. The seed is to be picked, the ground is to be carefully prepared, and raked smooth. Then a frame six feet square bored with holes six inches apart is to be laid on the ground, and a hole being made into the ground at each hole in the frame, at least four inches deep, a single grain of this corn is

to be dropped into the hole. In this way, a single quart of wheat or other grain will set an acre; and Markham states that if the ground is properly prepared, and by deep spade labour, the produce is beyond all experience both in quantity and quality. It may be doubted however, he adds, whether the labour, excessive in this case, is not too great for the produce.

Markham mentions several different kinds of wheat, viz. whole straw, great brown Pollard, white Pollard, organ or red, flaxen and chilter wheat. The first of these has we are told a straw full of pith, and was therefore much esteemed for thatching. Now he says it is quite worth the husbandman's pains, as he will find by experience, to sort out the fullest and largest corns for seed, even though this has to be done by hand-picking. He is also quite alive to the fact that it is expedient to buy seed, and that good seed procured from a harvest reaped on inferior soils will thrive far better on a good soil than its own produce will. The first two named kinds of wheat are of large grains, the others are smaller in size and fitter for poorer soils. There is nothing like the same variety in the selection of rye seed.

There are, he says, three kinds of barley: 'common, hairy long ears with two ranks of corn, narrow, close and upright; spike or battledore, being a large ear, with two ranks of corn, broad, flat, and in fashion of a battledore; and a third called bear barley, or barley big, being a large four-square ear, like unto an ear of wheat.' Of these the first is the commonest in England, the last universally grown in Ireland and France. He advises that seed-barley should be hand-picked, and that great care be taken that no oats get mixed up with the seed. There is no difficulty in selecting the seed of leguminous plants.

Of oats, Markham enumerates the following: the great long white, the great long black, the cut, and the skegg. Of these the first two are far the best, the last the worst, and only to be sown on the worst soils where nothing else of better use will grow. It is probably like the fen oats of which I find

frequent mention in my accounts, especially in Cambridgeshire and the Eastern Counties.

Rye is the first grain to ripen, and should be cut without delay, as it readily sheds its seed, if the reaping be delayed. It should be cut with a sickle, at least fourteen inches above the ground, and if it be free from weeds, can be soon carried in fine weather. The next crop is maslin, i.e. wheat and rye mixed. Here the wheat is a little later than the rye, but if the rye be ripe, we are assured that the wheat will harden in the stack. Then comes wheat, to be reaped in the same way as rye, but to be left longer out, at least two days, for the wind is sure to dry or harden it. The practice, commenced in many counties, of mowing wheat is to be condemned. It makes the wheat foul, and full of weeds.

Barley is the most difficult of crops to house. It ripens suddenly, and must be mown down at once. But it must be thoroughly dry before it is housed, or it will rapidly deteriorate. It is sometimes reaped, but it should be always mown, and close to the ground, and the land should be raked after the corn is cocked. The greatest difficulty about oats is the uncertainty of the time at which they may ripen, and the certainty of loss if the corn is not cut when it is ripe, as it begins to shed at once. The ripeness of pulse is known by the blackening of the straw. If you need wheat and rye stubble for thatching, mow it at once; if not, leave it as manure.

If you have seed corn to sell, thrash at once. You may need too some grain for family use, and for Christmas purchases. But corn is always cheapest from Michaelmas to Christmas, after which it is sure to rise in price. Malt such barley as you determine to use for this purpose between Michaelmas and Candlemas. The process of making malt was long a custom with farmers, and I believe that till comparatively modern times, a malt-kiln was an appurtenant to most large farms. In Lent get your seed barley ready, 'it ever is at the dearest reckoning of any grain whatever, especially if it be good and clean.' The highest price of

wheat, rye, and maslin is from the end of May till the beginning of September. A stock of malt made as suggested above is always most saleable in September, it is then old and ripe, and the new crop is not ready. So much for plowing and tillage.

In this work Markham makes no allusion to the system, at that time I believe almost universal, of cultivating land in common fields. A great deal has latterly been made of what appears to be a great and surprising discovery to those who were ignorant of English agriculture, except in recent times, the fact namely that this was an ancient and almost universal practice. As I have said, I believe it was well nigh universal for centuries, as I have shown from Fitzherbert's book on Surveying[1], where it is treated as a normal state of things. The extent to which the subdivision of land in common fields, and even of small closes, was carried, is curiously illustrated by a survey of the parish of Gamlingay in Cambridgeshire, taken at the expense and in the interests of Merton College, Oxford, in March, 1602 (44 Eliz.). The parish, containing two manors, is very large, being 3255 acres in extent, and the greater part is under cultivation. There are however thousands of strips in the common fields assigned to different owners, the Queen and Clare College, Cambridge, being the most considerable proprietors after Merton College. I well remember in my youth seeing the system in full operation on the sides of the turnpike road between Oxford and Birmingham, and I am informed that it long lingered in Warwickshire[2]. I shall take occasion to show, I trust, how some of these tenancies were fraudulently extinguished under form of law.

Markham proceeds to discuss, in the second part of his first book, the art of gardening and orchard-making, and states that he derives most of his information from Italian, French, and Dutch authors, whose works he has read, and has con-

[1] Vol. iv. p. 94.

[2] The merits and advantages of enclosed as opposed to common land are discussed by Norden. The Gamlingay survey is in the archives of Merton College. The College paid £12 for the work.

densed in his own treatise. Most of his information undoubtedly came from Holland. He divides an orchard into four parts, one for apples, one for pears, one for quinces and chestnuts, one for medlars and services. On the south aspect of the wall must be planted apricots, verdochios, peach and damask plums; on the western aspect the white muscadine grape, the peascod plum, and the imperial plum; on the east aspect grafted cherries and olive trees; and on the north aspect the almond and fig. A variety of other fruit-trees are named, but one cannot help thinking that Markham has imagined that some trees would bear fruit in England which no modern experience has attempted. The writer then describes the nursery of plants, the art of grafting, and notes the principal diseases of trees.

Markham devotes a considerable space to the cultivation of hops, mentioning that a considerable traffic was carried on in this commodity, between England on the one hand, and France and Flanders on the other. But the greater part of what he says is identical with what had been stated before by Reynold Scot[1]. He says however that every hill should grow $2\frac{1}{2}$ lbs. of hops, enough for a quarter of malt; that there may be a thousand such hills to an acre, and that a labourer is needed to every $2\frac{1}{2}$ acres; and that the average price of a cwt. of hops is four nobles, so that he infers a profit in ordinary years at the rate of £6 a rood. Unluckily Markham does not inform us in what counties hops were principally grown.

My author proceeds to discuss the form of pleasure, and particularly of knotted gardens. But my reader will be more interested in the conduct of the kitchen garden, because it is from garden cultivation in the first instance that the root cultivation of the farmer has proceeded. The potherbs of the seventeenth century gardener were endive and succory, bleet white and red, beet, land cress, parsley, savory, thyme, French mallow, chervil, dill, hyssop, mint, violets (whose leaves were used for salad), basil, sweet marjoram, strawberry (the leaves

[1] See vol. iv. p. 57.

of which were a potherb), borage, bugloss and rosemary, penny royal (used for blood puddings), leeks and onions. Besides these are salad herbs, lettuce, spinach, asparagus, colewort or cabbage, purslane, artichokes, garlick, radishes, navew or turnips, parsnips, carrots, pumpkins, gourds or melons, cucumber, Egyptian beans, skirrets. The seeds of many of these plants are given in the accounts. The writer concludes this part of his work with an account of garden pests.

The last part of my author's work deals with the planting of woods and coppices. In the latter Markham says that an acre of twenty-one years' growth is worth £20 or £30, one of seventeen years' £8 to £10, one of twelve years' £5 to £6, and that in many of the bishops' woods the cutting is delayed for thirty years. He infers therefore that the yearly cuttings should be so limited as to extend at least over the twenty-one years if possible. The work concludes with a short account of the diseases affecting horses and the remedies for them. Appended to the edition of 1635 is a short treatise on angling, and on the art of breeding and training fighting-cocks, which the author describes as the pleasures of princes, or good men's recreations.

Among the works of this voluminous and popular writer, whose books went through many editions, is one which he entitled 'Markham's Farewell to Husbandry.' I shall refer to and quote from the fourth edition, published in 1649. The principal object of the book is to point out how land, hitherto uncultivated, and deemed to be incapable of bearing a profitable crop, may be made useful and even fertile. In compiling this part of his work, I suspect that Markham laid the Dutch and Flemish writers on husbandry under contribution, for the processes which he describes are vastly like those which had been in use for cultivating poor sands in Brabant. Another work of his, long popular, and reprinted till the end of the century, under the title of 'The Enrichment of the Weald of Kent and Sussex', bears the same marks of foreign influences, and of projects which were not to be realised for a long time. I do

not indeed doubt that husbandry made notable progress in the seventeenth century, especially towards its close, but I am pretty certain that Markham's suggestions remained for a long time mere theories.

Markham tells us, as Fitzherbert said more than a century before, that the custom of marling land had gone out of fashion, unquestionably because a tenant on a short or precarious holding could not venture on so costly a risk as that of enriching his landlord's property without any security that he would get the benefit of his outlay. But in this edition of his 'Farewell,' the author gives his own account of marl and marling, and of the benefit which the operation is to most land. He is alive to the advantage which comes from the liberal use of sand, chalk, and especially lime, on stiff clays, especially if the sand be procured from the beach. He knows also what is the use, as manure, of woollen rags, of horn-shavings, of hoofs, of soap ashes, hair, malt-dust, fish-manure, and the blood and offal of cattle. I refer to these, because Markham is the first writer on husbandry who dwells particularly on manures, other than that of the stable and farmyard. He knows how useful bush harrowing is to mossy and uneven pasture, and the best means for treating artificial water-meadows.

The preservation of corn in the straw, or after threshing, is a subject on which Markham dwells at length. He teaches the farmer, in places where farm buildings are scanty, to build his ricks on such a frame as shall keep the stack from damp and vermin. In Ireland he tells us, 'where war rageth,' it was the custom to keep the ears in wooden hutches, or to thresh the corn, and store it without winnowing it; and advises the building of the garner of plaster and small stones, and of placing it at the back or side of chimneys, so as to keep the grain moderately warm. He then describes the silos of the Azores, which he declares that he has seen, and refers to the well-known story of Pliny as to the use of these pits on the eastern coast of the Adriatic, recommending the adoption of the system in England.

The fact that the English nation was now beginning to emulate the long voyages of the Dutch, leads Markham to discuss the kinds of grain which are most useful on shipboard. Of these he says the best is rice, the next well-dried wheat, the next oatmeal, then foreign barley, and the last is beans and peas. He comments on the trade in corn with foreign countries, and points out how it can be best stowed, so as to prevent damage by the motion of the ship, and the natural heating of the grain.

Perhaps however the most instructive parts of this author's statements are the estimates he makes of labour. He reckons that a man may plough an acre to an acre and a-half of stiff soil daily, in light sands two to three acres; that he can mow grass which is laid, or pasture which is uneven, an acre daily; if the grass stands upright, and the meadow is even, an acre and a-half; and of thin, short or upland grass two acres in the same time. If barley and oats be laid, he can mow an acre and a-half; if it be still standing, two to two and a-half acres; and when the crop is short and thin, even three or four. He can be as expeditious with peas and beans. Provided with another to bind, good standing wheat and rye may be reaped at an acre a day; but if it be laid, he will hardly do more than three roods. If oats and barley are bound into sheaves, a binder will tie up as much as a man can mow; but if they be very expert, two binders will suffice for three mowers.

In ditching, one man may clear and quick-set a ditch four feet broad and three deep at the rate of a rod or pole of sixteen feet daily, and may hedge a good and substantial fence of five feet high at the rate of two rods daily. A good workman will not be able to plash more than a rod daily of hedge, and this requires great skill to do properly. He may dig ordinarily with spade a rood a day, but if he is to do so deep, to trench and manure the land, he can do only half a rood. Lastly, if corn be good and clean, he can thresh four bushels of wheat rye, six of barley and oats, and five of beans or peas, if the crop of the last two is very good.

He then describes the working hours of a farmer or ploughman. He supposes him to begin his work after Christmas, on the first plough-day, i.e. Plough Monday, or the first Monday after January 6. He is to rise at four in the morning, and feed and clean his cattle and his stable. While they are feeding, he is to get his harness ready: this work will occupy two hours. Then he is to have his breakfast, for which half-an-hour is to be allowed. Getting the harness on, he is to start by seven in the morning to his work, and to keep at it till between two and three in the afternoon. He is then to bring his cattle home, clean them and give them their food, dine, and at four go back to his cattle and give them more fodder, and getting into his barn, make ready their food for the next day, see to them again, go to his supper at six, and after this, 'by the fireside, mend shoes both for himself and his family, or beat and knock hemp and flax, or pitch and stamp apples or crabs, for cider or verjuice, or else grind malt, pick candle rushes, or do some husbandry office within doors, till it be full eight o'clock.' He shall then take his lantern, and visit his cattle again, and then go with all his household to rest.

Markham considers that the best animals for draught are oxen, the next horses, and the worst, bulls; that eight, six or four are needed for plough, five or four for a cart, and never less than six for a waggon, except in harvest-carrying, when four good oxen are enough. The number of oxen needed for a plough depends of course on the nature of the soil, and the time that the plough is to work the same land, the later ploughing being easier than the first. A team of oxen he adds will not do as much as a team of horses, because they are not so swift, and you cannot drive them out of their pace. They can plough an acre a day, or an acre and a rood, or even an acre and a-half. It will be seen then that from the days of Walter de Henley to those of Markham, fully four centuries, writers on English husbandry gave a marked preference to the labour of oxen on a farm, over that of horses.

Among the fertile counties Markham names Hunts, Beds, and Cambridge, as well as others, in all which he speaks of stiff clay as general. Of mixed soils he names Northants, Herts, most of Kent, Essex, and Berks; while the sandy counties are Norfolk, Suffolk, most of Lincoln, Hants, and Surrey. The most barren, and those for the improvement of which his book is written, are Devon, Cornwall, much of Wales, Derby, Lancashire, Cheshire, and York. He concludes his book with a short account of the work to be done in each month of the year.

I have made these extracts from Markham's principal works on husbandry, and there are numerous minor writings of his, partly because of the popularity which this writer enjoyed, and of the evident confidence with which he gives his advice on his subject, partly because the works really represent what was known of agriculture at the time. But there is a special value in what this author says about the character of the working day, and about the amount of agricultural labour which the farm-hand can get through in his day. When we have to deal with the price of labour, it will be found that many of the records are of piece-work, and Markham's interpretation of these will be of service when I am translating them into day-work.

Before I proceed to the next great authority on English agriculture, Hartlib, I must say a few words on Vaughan, Plattes, and Blith. The former was a Herefordshire gentleman, who in 1610 published a project for establishing waterworks, and giving employment to men and women in the so-called Golden Vale of the Wye. He gives a melancholy picture of the population there, of their poverty, their ignorance, and of the neglect with which they were treated.

Plattes wrote an essay on English husbandry in 1638. He appears to have been of Dutch descent, and he tells us, that during his experience rents had risen, and agriculture had improved. But he recognises also what was, as it has been and is still, the bane of English agriculture. 'I

see no reason,' he says, chap. iv, 'why tenants at will, for life, or a term of years, should be industrious, whereas the benefit of their labours is to fall into other men's purses, unless there be a contract between landlord and tenant, whereby a just share may redound to both parties answerable to their merit, which, if this were done, then would the husbandman be much stirred up to try experiments.' Again, chap. vii: 'There would be many improvements, if there were a law that every tenant, if he were put out, should recover double his charges of the succeeding tenant, which also may be done by contract between landlord and tenant, if they could agree. And then men would labour cheerfully, as for their posterity, if they were sure another should not reap where they had sown.' 'The bane of husbandry is the uncertainty of their tenures, as may be seen in Ireland at this time[1].' Plattes is withal a strenuous advocate of enclosures and high farming, and at this time, though common field farming was the rule, there were arable lands held in severalty. He contends however that no common should ever be enclosed, without leaving at least a cow's grass to every cottage.

Blith wrote on English husbandry in 1649. His comments on agriculture do not differ from those particulars which I have quoted out of Markham's more elaborate treatises. There is however one passage to which I must refer. He says, 'If a tenant be at ever so great pains or cost for the improvement of his land, he doth thereby but occasion a greater task upon himself, or else invests his landlord with his cost and labour gratis, or at best lies at his landlord's mercy for requital, which occasions a neglect of good husbandry, to his own, the land, the landlord, and the kingdom's suffering. Now this I humbly conceive may be removed, if there were a law enacted, whereby every landlord should be obliged, either to give him reasonable allowance for his

[1] Plattes is probably thinking of the system of Irish gavelkind, which before his time had been successfully denounced by Sir John Davis, as a 'lewd custom.'

clear improvement, or else suffer him or his to enjoy it so much longer, as till he hath had a proportionable requital[1].'

The next person on whom to comment is Simon Hartlib. He was a Dutchman by birth and a friend of Milton, having been especially associated with the poet's theories of education. It is plain that Hartlib had travelled extensively. He is not only well acquainted with most countries in Western Europe, but he had visited the American plantations, and refers to New England and Virginia in terms which show that he was familiar with them. His only considerable book on agriculture is 'The Legacy of Husbandry.' The copy to which I refer is of the third edition, published in 1655.

The method of Hartlib's treatise is to point out the numerous particulars in which English husbandry is defective, and to illustrate his advice by reference to the practice of other countries, particularly Flanders and Holland. He says that the art of gardening came into England 'about fifty years ago,' and that old men in Surrey remember the time when the first gardeners came there and began to plant cabbages, cauliflowers, turnips, carrots, parsnips, early peas and rape, which were up to that time great rarities, all which were seen in England, having come from Flanders or Holland. These gardeners got land with difficulty, though they offered enormous rents for it, the landowners imagining that the use of the spade would spoil the ground. 'Even now,' he says, 'gardening and hoeing is scarcely known in the North and West of England, in which places a few gardeners might have saved the lives of many poor people, who have starved these dear years[2].' He goes on to say that we still import a number of articles which we could easily grow ourselves, and that nearly everything now produced in gardens at home was imported in Elizabeth's reign from foreign countries.

[1] I have dwelt on the agricultural writers of the seventeenth century at some length in my 'Six Centuries of Labour and Wages,' p. 450, sqq.

[2] Hartlib is probably referring to the five years 1646–50, in which a real famine prevailed.

At that time he says even hops came from the Low Countries, and he quotes a French author, whom he does not name, as saying that 'it is one of the great deficiencies of England that hops will not grow there.' Still, he says, we import onions from Flanders, and even plants which grow wild in our own hedgerows, but we are not at the pains to cultivate. Speaking generally of English agriculture, Hartlib mentions incidentally that, ordinarily, six or eight to one is considered a good crop of wheat, i. e. twelve to sixteen bushels the acre.

What is true about gardening is true also about the planting of orchards, in which the England of Hartlib's day was long behind other countries, orchards being comparatively few, and the fruit-trees in them being ill-selected. He even argues that, in orchard planting, the English have gone backward in comparison with other times. He advocates the cultivation of the hardier kinds of the grape, and states that Sir Peter Ricaud at Great Chart in Kent yearly made six or eight hogsheads of wine from vines of his own growth. He says that the cultivation of hemp and flax is neglected, and that, generally speaking, pains are not taken to improve land, to select breeds of cattle and sheep, to replace woods which have been cut down, and to generally enlarge the area of agricultural operations. In connection with the waste of wood, Hartlib says that it is occasioned by the consumption of charcoal in iron-works, and mentions that latterly a patent had been obtained for the manufacture of iron from sea-coal. He is here referring probably to the reputed inventor of pig-iron, Dud Dudley.

Hartlib however has most set himself to encourage the sowing of saintfoin, lucerne and the large clover, artificial grasses which, as he tells his readers, have been cultivated with marked success in France, Flanders, and Holland. He expatiates on the excellent crops which can be procured of the first of these on light lands, how it will give a crop for seven years, and afterwards, owing to the length and size of its roots, how it becomes, when the land is ploughed, an excellent

preparative manure for a wheat crop. He produces information as to the extraordinary value, in land adapted for its growth, of lucerne. He is equally alive to the merits of the great or red clover. Still, for a century and more after Hartlib's time, these artificial grasses were rarely cultivated, as we may learn from Arthur Young's Tours. But Hartlib does not seem to have foreseen what a change would be made in agriculture, as soon as winter roots were substituted for fallows.

My author is very alive to the great fluctuations in the price of corn during his experience, and what he says will be fully borne out when I come to speak of the price of grain during the period before me. The farmer he says is ruined by excessive cheapness, the people are half-starved in dear years. He therefore recommends the garnering of grain from harvest to harvest. He says he has known barley sold at Northampton at *6d.* a bushel, and within a year at *5s.* in the same place; wheat at *3s. 6d.* in London, and within a year at *15s.* the bushel in the same place; and he appears to be aware of Gregory King's law of prices, when he observes (p. 202), 'It is found by experience, that when there is but a little corn too much to sell in a market, then the price falleth too extremely; also if there be never so little a quantity too small, then the price is enhanced too much in all conscience.' Hartlib has heard of the use of silos for preserving grain, but he thinks the English climate too damp for the experiment.

Among the grievances of which Hartlib complains, one is the uncertainty of fines in copyholds and customary tenures, which he alleges constantly left the tenant at the mercy of the landlord; and the other is the enormous number of dovecots or pigeon-houses constantly kept by men who have no land. He says that there are constantly as many as three of these nuisances in every parish, and he believes that these birds devour six million quarters of different kinds of grain annually. I believe that the number of the dovecots is an exaggeration, and that the waste could have been nothing equal to the amount given; but they were a great nuisance, and it is

quite certain that through the seventeenth century tame pigeons were generally very cheap.

Among the correspondence appended to Hartlib's 'Legacy' are several letters from English agriculturists detailing the success with which they had carried out the cultivation of clover, and the profit which they had procured from their venture. One of these letters concludes, 'Though you were not the parent of this husbandry, yet you were the hand which did obstetricate and give it birth, which else had been strangled in a private hand, and the public never known this benefit, for which it is your debtor, and as a limb thereof, your friend and servant, R. H.' Hartlib's correspondent confesses to a profit in hay and seed of £30 an acre for two acres, besides the aftermath. Similar testimony is given by Mr. Cruttenden, a landowner near Tunbridge. Hartlib survived the Restoration about two years, for the last notice of him, according to Mr. Dircks, who published a life of him in 1865, is in April, 1662.

Among the pamphlets of the time (1670) is an anonymous tract giving an account of the manner in which barren and heathy land in Brabant and Flanders is turned into valuable arable in less than seven years, the writer stating that he has seen the process himself. It must have been this system which Arthur Young witnessed, when he spoke of 'the magic of property turning sand into gold.' A farmer will take five hundred acres of this land, and first break it up with a strong team, then plough it across, harrow it, and burn the heath, the ashes being scattered over the ground. He then lays twenty loads of dung to the acre, and ploughs it in. Some he says then cultivate on a four-course system, first of flax, then of turnips, then of oats with clover, the clover being the crop of the fourth year. Some again have a course of rye, oats, turnips, and oats with clover. The manure is obtained by housing sheep at night, and laying three or four inches of sand on the fold till the sand is saturated, when a fresh layer is laid. In this way three or four hundred sheep will produce a thousand loads of dung a year. The terms on which such an estate is

let is a lease of twenty-one years, at what rent may be agreed, but on improvement, i. e. at the end of the term, four persons are to view the land, and if it be improved above the rent, that the owner should pay the tenant the difference between the agreed rent and the improved value. The writer considers whether the adoption of this system would not lead to an extraordinary and rapid development of agriculture in England. In Flanders he tells us they sow about 2½lbs. of turnip-seed to the acre, and get a crop worth £8 an acre after all charges are allowed.

John Worlidge was a Hampshire gentleman living on the borders of Sussex, near Petersfield. His work, *Systema Agriculturae*, passed through many editions, and was an authority for the last thirty years of the seventeenth and the first quarter of the eighteenth centuries. I quote from the second edition, published in 1675. The peculiarities of Worlidge's style are, that he is exceedingly fond of Latin quotations, and that he is evidently familiar with the current natural philosophy of his time, which imagined 'a universal spirit or Mercury, a universal sulphur, and a universal salt,' fertility depending on a due admixture of these essential elements. For this latter reason I conclude that he is so great a favourite with Houghton, who frequently refers to his authority.

Worlidge is a great advocate of enclosures as opposed to common fields. He alleges that the popular system which he condemns has great disadvantages in the discouragement of anything like systematic or high farming, in the fact that it leads to highways and paths being established in all directions over the fields, and in the absence of timber and the shelter it affords, results which cannot be attained in such fields. There is only one objection to enclosures. It is alleged, and perhaps truly, that mildew is prevalent in wheat when the land on which it grows had been enclosed.

The writer of the System of Agriculture suggests that the laying meadows under water, and the bringing such water by courses or by artificial means to ground which would not

naturally have been flooded, had made considerable progress, and might with advantage make more. The addition in short of such supplies for the winter feeding of stock, as would be obtained from natural or artificial pasture, was at this time of great importance, for it must not be forgotten that root cultivation had not yet passed from the garden to the field with the enormous results which this change induced, although it was well known that root cultivation in fields was the unquestionable cause of the success with which agriculture was practised in Flanders and Holland.

Next, it is clear that since Hartlib's time considerable progress had been made in the cultivation of the great clover, saintfoin, lucerne, and trefoil, with some of the other artificial grasses. What Worlidge says about these three or four 'grasses' is true at the present time, as is also his argument that the use of these grasses is an obvious means by which to get rid of the unprofitable system of fallows. It is also plain that the system of densharing or devonshiring old and poor pasture had made considerable progress, and had now become a familiar agricultural experiment.

It appears that by this time three ploughings were customary in the case of wheat, four times for barley, if the land has long been left without ploughing. He recommends a first crop of peas on land newly ploughed, as the cheapest crop, and the best means for clearing the land of weeds. He discusses too, as Hartlib did, the comparative merits of plough and spade husbandry, Plattes' recommendations of the latter[1], and his assertions as to the extraordinary produce which it yields, having greatly exercised the writers of the time. Worlidge is however strongly in favour of small farms, and is constantly quoting Virgil's commendation of small holdings.

Like most of the writers on husbandry in this century, Worlidge strongly advises the cultivation of hemp and flax, large quantities of which, to his great dissatisfaction, are annually brought into England from foreign parts. He is

[1] 'Adam's Toil Remitted,' by Gabriel Plattes. 1600.

convinced that were 'immunities' granted to districts in which this crop might be cultivated, much good and a rapid extension of the produce would speedily result. He does not indeed go into any detail about his immunities, but he speaks with great dissatisfaction of the check which experimental agriculture suffers from the system of tithe, which may, in such an experiment as this, absorb the whole of the farmer's profits; and he argues, that as the tithe-owner does not reap any benefit as long as the occupier abstains from this kind of cultivation, he would not be wronged if he were debarred from increasing his toll whenever such a novel kind of agriculture is adopted.

As regards root cultivation, Worlidge only urges the claims of the turnip, which has, he says, been made the subject of farmers' cultivation for the winter feeding of stock in some parts of England. Now it is certain that the improvement of agriculture and stock in England was entirely due in the first instance to the cultivation of the artificial grasses and of winter roots, and that the former of these agricultural expedients had made considerable progress in the seventeenth century, as the latter did in the eighteenth. 'It is,' says Worlidge, 'a very great neglect and deficiency in our English husbandry that this particular piece,' i.e. turnip-sowing in fields, 'is no more prosecuted, seeing that the land it requires need not be very rich, and that it may be sown as a second crop, especially after early peas, and that it supplies the great want of fodder that is usual in the winter, not only for fatting beasts, swine, &c., but also for our milch kine.'

Worlidge describes a rude kind of drill, which he has seen in operation, and informs us that all kinds of grain and pulse were employed in his time for the manufacture of spirits; and like all other writers, discusses the best means for preserving corn, and for assisting its fertility and obviating disease by steeping it in divers mixtures before it is sown. He deals, as other writers before him dealt, with liming, sanding, and marling land as means for developing its fertility, and of the

respective merits of different kinds of manures. The rest of his work is on the cultivation of trees, fruit and timber, on the culture of the hop, on gardening for the kitchen, on the management of orchards, and on the manufacture of home-made wine. In speaking of the garden he alludes to potatoes, which are he says cultivated a great deal abroad, and in some places in England. The last part of his work treats of cattle and poultry, of tools for the farm, of fowling and fishing.

Among the farm products on which Worlidge touches, is tobacco. He says that before the laws were enacted which prohibited its cultivation, many hundred acres were prepared and employed as tobacco plantations in Gloucester[1], Devon, Somerset, and Oxfordshire; that the profit on it was very great; that it had often been sold in London as Spanish tobacco; that the reason why the prohibition was imposed was the shipping employed in the colonial trade, and the risk which the permission to cultivate it would induce on the king's revenue. The answer to these arguments is that tobacco is a small matter among the colonial products, and might easily give way to other articles, while the possible loss of revenue from the customs may be supplemented by a countervailing excise on the home product. The Statute referred to is 12 Chas. II. cap. 34.

The improvements effected in English husbandry during the course of the seventeenth century more than doubled the population. Nothing, I am persuaded, enabled that increase to be effected, during the reign of Elizabeth, so much as the fact that the immigration of the Flemish refugees improved in some degree English husbandry as well as English manufactures. For the Flemings and Hollanders were the teachers of the new agriculture. They adopted the artificial grasses, and cultivated winter roots in the fields long before their neighbours adopted either of these capital discoveries. To the inhabitants of the Low Countries, and especially to Holland, the civilisation

[1] My friend, Lord Moreton, tells me that he has found evidence of this fact having been as stated, during the Civil War, in Gloucestershire.

of the seventeenth and eighteenth centuries, in so far as it depended on material progress, owed everything. Not only were they the pioneers of progress in agriculture, but in finance, in commerce, and in banking. Nor were their services less to mankind in insisting that governments are to be the servants, and not the proprietors of nations, and that the true claim to obedience on the part of the subject is proved desert on the part of the ruler. It is also to their credit that they were the first people who accepted all that is contained in the doctrine of toleration, that they respected freedom of conscience, and were the earliest nation in Europe which put all religions on an equality before the state[1].

[1] I am not of course forgetting the brief but shameful quarrel of the Arminians and Gomarists, and the infamous judicial murder of Barneveldt.

CHAPTER III.

ON THE DISTRIBUTION OF WEALTH IN ENGLAND FROM 1583 TO 1702.

DURING the last twenty years of Elizabeth's reign, full as it was of stirring incidents, and marked as it was by occasional political activity, little change was made in the distribution of wealth. High prices and low rents, enforced economy, and austere habits of life helped to develope that peculiar type of Englishman who gave so marked a character to the age which was at hand, and effected the consolidation of the Puritan party and that spirit of resistance to Government which, after a forty years' struggle in and out of Parliament and the extinction of every hope of an amicable settlement, drove the people into civil war. James never enjoyed the respect of his subjects for a day, Charles never gained their confidence for an hour.

During the course of the War of Dutch Independence, and as the Flemish or obedient provinces were being subdued, ruined, and harried by the Spanish Inquisition, numbers of Flemish artisans and capitalists emigrated to England. Towards the end of my period, a similar colonisation of persecuted Huguenots was effected, and in each case political and polemical sympathies were enlisted on the side of the newcomers. Now it had long been an object of anxiety with English statesmen to develope woollen manufactures in the country, and to get the benefit of a textile industry as well as of an agricultural product, in which, as I have often said, England had for centuries a monopoly. During the times of

the Plantagenet kings, Flemish weavers did settle to some extent in England, but it would seem almost entirely in the eastern counties[1], and particularly Norfolk. Hence during this period, Norwich after London was the principal town in the kingdom, and Norfolk after Middlesex the richest county, i. e. Middlesex, including London. But in course of time, and as these newcomers were more numerous, the chief woollen manufactures were established in the south and west of England, and Norfolk became actually as well as relatively poorer, till a new woollen manufacture of lighter fabric was developed in the eastern counties. Still the English woollen manufactures appear to have been of second-rate goods only, for the finer and more costly kinds of cloth were of foreign origin.

Now during the seventeenth century, I find seven assessments extended over the whole kingdom, which will enable us to discover how wealth was distributed through the several counties. They are the assessment to ship-money in 1636; that of 1641 for £400,000; that of March 25, 1649; that of December 25, 1649; the proposed scheme of 1660 for extinguishing wardship in consideration of a permanent charge on the land in the several counties; the monthly assessment imposed on the counties in 1672; and the seventh and last, the assessment of 4*s.* in the pound in 1693, the origin and indeed the valuation of the land-tax which Pitt the younger made perpetual and redeemable. In all these cases the area of the counties given in the census of 1861 is taken, and this being divided by the amount of the assessment gives the number of acres to pounds sterling of taxation.

These valuations, assuming them to have been made fairly and according to the best judgment of the time, are taken at typical periods. I have discovered indeed no assessment for taxable purposes during Elizabeth's reign, nor during that of James, so that my first contrast has to be between two

[1] In a register of tenants at Grantchester, 1354-5, I find these obviously Teutonic names—Schnestat, Dirschafer, Eigenhale, Baumgered, Schapman, Henkel, and Fitzkauf.

valuations 133 years asunder. Had I discovered one which would have enabled me to contrast England before and after the dissolution of the monasteries, before that great economical convulsion had completely changed the social conditions of England, the contrast would have been of great interest and value, for as nearly a century intervened between the dissolution and the first of my assessments, we may conclude that the effects of the cataclysm were over by the later period, and that the transference of the property of the monks to the new nobility had ceased to be any disturbing cause in English social life.

Now the first of these seven assessments was made when England had been for a generation in a state of profound peace; for Buckingham's expeditions were a mere diversion. The policy of James and the perfidy of Charles had effaced England in European politics, for in the great drama of the Thirty Years' War England took hardly any part. Now we are told that during the enforced suspension of parliamentary action, the country greatly increased in wealth. Certainly, as we shall see hereafter, the price of grain rose rapidly, and the farmer must have sold what produce the seasons gave him at high rates. There is reason to believe too that much progress was made in foreign trade, and that both in the Indian seas and in the Mediterranean, English enterprise in a more or less legitimate way had superseded English buccaneering.

The ship-money assessment was levied on all counties alike, upon their presumed capacity to pay, not on their power to contribute in kind, for the first seven in order of the contributions, including Middlesex with London, are inland counties. Now to take the exceptional case of Middlesex first. In 1503, Middlesex pays £1 to every 203 acres; the next to it being Oxfordshire, with £1 to every 405 acres. But in 1636 Middlesex pays £1 to every 8·629 acres; the nearest to it being Herts, with £1 to every 98·507 acres. In other words, in the reign of Henry VII the wealth of Middlesex was not quite

double that of Oxfordshire, in that of Charles, Middlesex is more than eleven times wealthier than Hertfordshire. It should be added that a very serious fire had occurred in London just before the assessment of 1503, and that it might be fairer to take another standard, for instance the valuation of 1453, when the assessment of Middlesex with London is, acre for acre, almost exactly 7·7 times higher than that of Oxfordshire, the next in order. Now it is plain that the difference between the old and the new proportion represents the progress which London had made. The assessment of 1636 does not separate, as the others do, the contributions payable by certain towns, as distinct from the counties in which they are situate.

Oxford was in 1503 the most opulent of the counties, and next to it Norfolk. In 1636, Oxford is the 17th, Norfolk the 25th. Herts was the 14th in 1503, it is the second in 1636: and generally, the home counties north of the Thames are those which show the greatest progress in opulence. Now I have little doubt that this growth is due to agricultural improvements. But the midland and southern counties lag behind, and do so steadily. Take for example Kent. In 1341 it is the fifth county, in 1453 the tenth, in 1503 it is equal to Northampton, and is the twelfth or thirteenth. In 1636, it is the fourteenth. I think that this comparative decline is due to the falling-off of trade in the Kentish seaports. On the other hand, Somerset, twenty-second in 1341, is fifteenth in 1453, sixteenth in 1503, ninth in 1636; positions which indicate the growing fortunes of Bristol. But of these several counties, the fortunes of Oxfordshire are the most curious. It is third in 1341, second in 1453 and 1503, and has sunk to the seventeenth place in 1636; its old rival Norfolk, for whose decline an obvious reason, in the loss of the almost exclusive cloth manufacture, can be given, is twenty-fifth. I know nothing in the history of the county which will explain that which we shall hereafter find to have been temporary, for Oxford recovers to some extent its former position.

With regard to the poorer counties, but little change is effected in their position. The counties on the northern border and Lancashire were the poorest, and in 1636 Lancashire is poorer than Westmorland, and only a little better off than Cumberland, which, except in 1341, is at the bottom of the list. York is in nearly the same relative place. No material movement has yet been made in that direction which has made Lancashire and the West Riding of Yorkshire the most prosperous parts of England.

Now I make no doubt that the ship-money assessment was intended to be equitable[1]. But I am equally sure that the assessment was a guess, made from the best materials available, but without any adequate information as to the relative resources of the contributing counties. There had, in fact, been no bona fide valuation for more than a century.

The next valuation is taken four or five years later. By 16 Car. I. cap. 32, a grant of £400,000, to be applied to the purpose of 'repressing the rebellion in Ireland,' is made, and the counties are again assessed. Here the guessing is even wilder, by far the most grotesque valuation having been that of Devonshire, which is put sixth in the list of contributories, its natural or ordinary place being from the twenty-fourth to the twenty-eighth. Rutland, again, is greatly under-assessed. But there is no intentional unfairness, for those counties which were most resolutely on the Parliament's side, and which became the seven associated counties, the nucleus of the Commonwealth and the recruiting-ground for Cromwell, were as a rule put at too high rates.

No general assessment was possible during the course of the Civil War, for the Parliament could levy direct taxes in those counties only which were in the occupation of their forces. Thus on October 27, 1643, the Parliament determined to make their Scottish allies a grant of 100,000 marks, to be derived from an assessment. By far the largest part of this

[1] It was alleged to have been by Parliament in 1660, and clearly the counsellors of Charles could not have wished to aggravate illegality by unfairness.

grant is provided from within 'the bills of mortality,' and the counties on which the residue is assessed are Herts, Beds, Middlesex, Essex, Suffolk, Norfolk, Kent, Surrey, Cambridge, Hunts, Northants, and Rutland, for in those counties the authority of Parliament was practically unchallenged.

During the Civil War England was conquered by the Parliamentary armies piecemeal, for the war was essentially one of sieges. The Acts and Ordinances of the Westminster Parliament give distinct information of the gradual progress of the Commonwealth's armies. Now during this struggle, the Parliament's agents or officials must have gained a good deal of practical information as to the comparative resources of different English counties and towns, and have prepared the way for an equitable revaluation for the purposes of taxation, since a considerable amount of the Parliament's revenues were derived from direct taxation.

The first of these assessments after the war in England was practically over, was made on March 25, 1649. Some of the greatest inequalities in the assessment of 1641 are remedied in this, but only partially. Devonshire is still overtaxed, occupying the twelfth place, and some of the counties are undertaxed[1]. But again I do not think that the unfairness is designed.

During the summer of 1649, it is clear that the administration was collecting evidence with a view to making as just an assessment as possible. This was achieved by the valuation of December 25, when the grant of £90,000 a month, for the maintenance of the army and navy, is continued for three months, to sink to £60,000 a month from March 25. I conclude that this valuation satisfied every one, in so far as people can be satisfied with direct taxation, for it is adhered to during the rest of the Commonwealth, and indeed practically afterwards, though the commissioners for the different counties were allowed to represent their case, and to take action in

[1] For instance, Kent, Suffolk, and Norfolk are put at exactly the same rate, £7144 11*s.* 7½*d.*

case there was any proved unfairness in the assessment which the Parliament had adopted.

The most notable feature in this valuation is the much higher rate at which the Welsh counties are assessed. But on the other hand, some counties, notably Devon, which had been greatly overcharged, are put into their proper scale of contribution, and others, Rutland in particular, are put at a much higher rate. But again there is evidently an intention of being strictly impartial. The counties which had throughout supported the dominant party are not treated with favour. London, which had made such great sacrifices for the Parliament's cause, is taxed rather more highly in December than it was in March, and the home counties are in many cases put up considerably. But Cambridge, though not so glaring a case of over-taxation as Devon, has its assessment greatly reduced in the winter valuation. Cheshire, on the one hand, has its proportion nearly doubled. Sussex, on the other hand, is largely reduced.

The reader will do well to compare the two valuations, in order to contrast the inadequate and imperfect guesses of previous attempts with this careful and exact assessment, one which I do not doubt precisely indicates what were the relative opulence and poverty of the English counties. It will be seen that very little progress had been made in the north of England, and that those counties which have now become the most prosperous and progressive part of England, were still nearly as backward as they were in the days of the Plantagenets. And the indirect evidence which these figures supply is supplemented by the notices which Houghton gives of those industries in the north which were beginning to struggle into existence, and were afterwards to grow to such gigantic dimensions. The expenditure of the Civil War was heavy, the maintenance of the army costly and vexatious, the excise searching and annoying, but the country was elastic under it.

A proposal was made under date of November 8, 1660, to

abolish wardship, and to levy a permanent assessment on the counties in lieu of it. It is plain that the schedule was not based on the liabilities of the several districts to the incidents of military tenure, for if this were the basis of the calculation, one cannot see how London could have been assessed at four per cent. of the whole charge. The scheme, as every one knows, did not take effect, the hereditary excise having been substituted for it; but the distribution of the cost over all tenements, and the theory that all tenures shall pay ransom, in order to benefit one kind of tenure, is only in degree less unfair than the expedient which was finally adopted. The date of the valuation is just after the Restoration, when the Parliament was discussing the means for settling the king's revenues. This assessment was based on that for ship-money.

Now as I have elsewhere stated, a line drawn from Scarborough to Southampton would roughly indicate the division of the country between Royalist and Parliamentarian during the Civil War. Naturally those districts which lay along the line of the contest would be expected to show the marks of depression, those which were practically free from the war to exhibit the signs of progress. And this is I think clear. Suffolk, which was tenth in the counties twenty-four years before, is second now, as it was when the war was over; and speaking generally, those counties which remained undisturbed during the struggle, or were associated for defence, are the best off. Beds remains in the same place which it occupied in 1636. But Kent is fourth in the counties, having been fourteenth in 1636. Bucks falls from fourth to ninth; Northants from fifth to eleventh; Berks from sixth to fourteenth; Leicester from seventh to eighteenth. On the other hand, Essex was fifteenth, and is now sixth[1].

The most remarkable rise is that of Sussex, from the twenty-ninth to the eighth place. This, however, can easily be

[1] The comparative importance of the Suffolk and Essex ports may have not a little to do with this growth.

accounted for. The Weald of Sussex abounds in hematite of excellent quality, and at this time was very heavily timbered. There were numerous and prosperous iron-works in Sussex, at which was produced metal of excellent quality. But the rapid exhaustion of the Sussex woods owing to this local manufacture, to which were added several glass-works, was constantly commented on and debated during the time of which I am writing. The activity of the iron manufacture of Sussex was prolonged for little more than a generation, and we shall see that this county rapidly sank back to nearly its old position.

The rise of Middlesex with London over the next county to it, is almost exactly the same as that recognised between Middlesex and the next county in the contrast of 1453. It is nearly 7·7 times more wealthy than Suffolk. On the other hand, the relations of the poorer counties remain almost unchanged, except that Lancashire has taken a slight start. In 1636 it was the lowest but one, in 1660 it is fifth from the bottom.

The next assessment is in 1672. In this year a monthly payment was assessed on all the counties, to be continued for eighteen months, each county contributing the sum set against it in the schedule. Now there is no doubt that during this time the country was making rapid strides, especially in the direction of the East India trade. Besides this, the American plantations were flourishing, and for example, the trade with Virginia for tobacco was becoming a capital factor, as persons at that time thought, in the business of the country. The profits of the East India Company were very large, and the system of circulating instruments of credit under the name of goldsmiths' notes was giving a considerable stimulus to trade, and if we can believe writers of the time, enormous gains to the moneyed men. But on the other hand, London had been decimated by a plague as terrible as that of the fourteenth century, and destroyed by a fire to which there was no parallel in recorded history.

After Middlesex, of course, Suffolk still holds the first place. But it is closely pressed by Surrey. Now this rise of Surrey from the fifteenth to the third place in the English counties is evidence of how rapid was the growth of London in population and wealth, for it is from the overflow of London that Surrey obtained her growth. Notwithstanding the tremendous loss which had fallen on London less than six years before, the assessment of Middlesex with London is more than ten times, acre for acre, the assessment of Surrey. Even without London, Middlesex is more than three times richer, by the same standard, than Suffolk. Herts too has gained a place, being fourth, and displacing Kent.

Sussex has fallen back nearly to its old place, from the eighth to the twenty-sixth place, for the iron industry of the county could not survive after fuel became scarce. But it is not easy to account for the displacement of some other counties during this period. The only fact of general significance is that 1672 was the last of a series of exceedingly abundant harvests, and as I conclude of considerable exports of agricultural produce, and considerable agricultural development. This seems to be the explanation of the bettered position of certain specially agricultural counties, such as Cambridge, Norfolk, and Wilts, which got a temporary rise in place. There is little change in the poorer counties, where Northumberland and York gain a place and Cheshire suffers a temporary fall.

The last of these assessments is that of 4*s.* in the pound in 1693. Here, as in the first of these four valuations, the towns are not separately assessed. Surrey now takes the second place after Middlesex, which is however rated nearly twelve and a-half times higher than its nearest county in wealth, and pays close upon sixteen per cent. of the whole tax. In this assessment Suffolk sinks from the second to the ninth place. Oxford rises from the fifteenth to the seventh. Some counties too, as Cambridge and Norfolk, lose place. In the poorer counties the rise of Cheshire is noteworthy, due I believe to the rapid development of its salt-works at the close of this century.

But the position of the poorest is unchanged. The wealth of York and Lancashire was as yet undeveloped, and these parts of England, which have within the last century made such notable progress, were at this time the most backward in the kingdom.

In three of these assessments, those of 1641 and the two in 1649, certain cities and towns are separately valued. In all these cases, the motive is probably to be found in the fact that a considerable rural district was attached to the town, under the name of the County of the Town of Norwich, &c. Sometimes the area is large. In York, the county of the city is 2720 acres, and the size of others is known. The order then does not give an exact account of the comparative opulence of the town or city proper. It will be seen too that the list is much larger in 1641 than it is in 1649.

Norwich[1] comes after London, having regained its place of second city in the kingdom. It is followed by York, though in the first of these assessments this city is not rated much higher than Gloucester and Exeter. Bristol is at a little lower amount than Exeter. But the most remarkable valuation is that of Canterbury. In 1503 it was the twelfth city, here it is the seventh.

During the later parliaments of Cromwell, Scotland and Ireland were united to England, and a new system of representation for the whole Commonwealth was introduced, which did not however outlive the Protector. In this the small boroughs were extinguished, the county representation was largely increased, and the franchise was bestowed on those who had £200 worth of land or goods. I find on examination that in a rough way representation was proportionate to the taxes paid by the counties. Hence I have given a table of the number of acres in each county which supplied or had the services of a member.

I have also appended to these valuations of England and

[1] The revival of Norwich was due to the development of a new woollen trade in light fabrics. See Macpherson, 1650.

Wales, two of Scotland and Ireland respectively, made in 1657, in order to show what was the proportion which these parts of the Commonwealth contributed. That of Scotland is exceedingly minute, each of the royal burghs, to appearance, being separately assessed. But there is only one city, Dublin, rated in the Irish valuation. After Edinburgh, by far the richest Scotch city, comes Dundee, then Aberdeen, Glasgow taking the fourth place. Again, if this assessment is accurate, Edinburgh was richer than any English city after London, though every other Scottish town is inferior to Hull in point of resources.

The tables of the number of houses and hearths in the several counties, and of the poor-rate collected in the same manner, are in the highest degree instructive. I have taken them from Davenant's essay on Ways and Means[1]. Had this acute writer been able with any accuracy to have known the area of England and Wales and the several counties, I have no doubt that he would have been able to draw many of the inferences which a modern writer can who deals with such statistics.

In the first place with regard to population. Macaulay, in a well-known passage at the commencement of his celebrated third chapter, has shown that there are three sources from which calculations have been made as to the population of England and Wales at or about the time of the Revolution, two of them being contemporaneous, and one modern. These inferences seem to me conclusive, though I am disposed to lean towards the lowest estimate. The return of the hearth money is of course of habitable houses, whether they were liable to the tax or not, which was remitted when the rent was under 20*s.* a year, and I presume when the house was not inhabited at all. That it was payable when the house was temporarily inhabited is manifest from the payments made by the Oxford

[1] Whitworth's edition, 1771. Davenant says, vol. i. p. 39, that the number of houses and hearths in each county was returned by the hearth-books on March 25, 1690. He reckons that the annual rental of the houses in London, Westminster, with Middlesex, is at an average of £13 9*s.* 9*d.*

and Cambridge Colleges, for the impost regularly appears among the disbursements of these corporations, though their inhabitants were migratory. I cannot but think then that some deduction must be made on the ground of persons occupying more tenements than one and for empties. Now in 1861, about one house in twenty, or five per cent. were uninhabited. Again, though many more persons in modern times have more than one house than had them in 1688, there can be no doubt that population is much more densely packed in our days than it was near two centuries ago. Now in the same census of 1861[1] the average of persons to a house is 5.3660. It seems to me certain that in 1688 the average was not above four, and allowing for empty and double holdings, I should incline to put the population at less than 5,000,000 rather than over that amount.

I have taken Davenant's figures of the houses and hearths in England and Wales, and have calculated the number of acres to each house in the several English counties (Durham and Northumberland being taken together in the original), and the hearths in each county to each house, the first of these being reckoned to two, the second to four places of decimals. Assuming that, generally speaking, the number of persons to a house is the same in all the counties, the average to each house may be taken as a fair index of the distribution of the population and its greater or less density in different parts of England. The density of course is by far the greatest in Middlesex, where the acreage to each house is 1.619. Next comes Surrey, with an acreage of 11.79 acres. Now when we consider how much of this county is waste and even moorland, so high an acreage is evidence that not a little of the wealth of London, possessed by retired merchants, had overflowed into this county.

On the other hand, Westmorland is the most sparsely peopled

[1] I use the census of 1861 in these volumes, because when I first began to publish these volumes it was the latest. Besides, the acreage of the counties had not been at all modified.

county, there being in it 72.55 acres to each house; then Cumberland, and next Wales, North and South, and inclusive of Monmouthshire. But the acreage assigned in the other counties amazed me when the figures came out. Next to the metropolitan counties come Worcester and Suffolk, each having less than twenty acres to a house. But for the rest, taking all the circumstances into account, especially the large amount of unenclosed and undrained land, explaining for example the high average of Lincolnshire, England must at this time have been peopled up to the full capacity of its agricultural produce, and one need not wonder at the high price of wheat during the last half of the seventeenth century. Those counties which contribute so small a proportion of the taxation compared with their area, such as Northumberland and Durham, Cheshire and Yorkshire, are only a little less densely peopled than those whose contingent was much more highly assessed. Undoubtedly had Davenant been able to have assigned the acreage to the houses, his inference that the northern and western counties were let off very easily in direct taxation would have been verified. For example, the taxation of Lancashire, area for area, is generally a third of that levied on Hunts, but the population is more dense.

It is very likely, however, that money was more scarce in these northern and western regions, and that prices were generally lower, as appears to be indicated by Houghton's corn returns, and later than the period comprised in these volumes by the schedule of wages published by the Lancashire magistrates in 1723[1], by Arthur Young's Tours, and by the collections of Sir Frederic Eden in his History of the Poor. But unless the prices of agricultural, manufacturing, and mining produce were correspondingly low, the low rate of wages ought to have increased the taxable means of the landowner or the employer. On the whole, I repeat that these house and hearth returns prove conclusively that England and

[1] See my 'Six Centuries of Work and Wages,' p. 396.

Wales were peopled up to their capacity in 1690. I should add that the average acreage to a house in 1690 was 28.29, and in 1861 was 9.98.

The number of hearths to a house is evidence as to the spread of the comforts and conveniences of life among the people. Of course the highest is in Middlesex, where the average is 3.2780. Next come Devon, Dorset, and Somerset. After them come the home counties, Kent leading. The lowest in the scale is Durham, with Northumberland, where the average is only 1.2404, though these are counties where the mining of coal had been an ancient industry. The figures seem to indicate that the northern parts of England were exceedingly backward in the common conveniences of life, and that the houses of the peasantry were mean and squalid. At the same time we know that the cause was not in the tax, for Davenant informs us that half a million of these houses were exempt from the payment of the hearth-tax[1].

Not less instructive than the economical inferences which may be gathered from the records of the hearth-tax are those derived from the distribution of the poor-rate. As regards these figures Davenant informs us that they are an average taken for several years, and calculated at the latter end of Charles the Second's reign. We are informed also that the estimate of the poor-rate in Wales is not derived from evidence, but is a hypothetical statement. But in interpreting the amount of taxation levied, and the distribution of wealth, Wales was of small significance at the time of which I am writing.

I have not ventured on making a hypothetical estimate of the population in the several counties, though of course it is just as legitimate to do so for the parts of England as it is for the whole. The total poor-rate, according to Davenant, is £665,362; and it is noteworthy, as we shall see below, that the price of grain was lower on an average between 1662 and 1685 than at any similar four-and-twenty years of the century, and therefore the charge for maintaining the poor should have

[1] Vol. i. p. 19.

been less than usual. As it is, the charge levied for relieving destitution was equal to a third of the whole revenue, as estimated in the Journal of the House of Commons on March 1, 1689; was equal in amount to the excise or the customs; or to the rest of the ordinary revenue, and amounted to a tax of nearly 2*s.* 8*d.* per head of population, this being taken at five millions at a time when the wealth of the country was not a fiftieth part of what it is at present. This was the result of the quarter sessions assessment of wages and the new poor-law. But further comment on these facts must be postponed till I deal with the wages of labour.

The most remarkable feature however in this table is the exceedingly unequal distribution of the charge. Here again I have taken the acreage and drawn up a table of the number of acres, calculated to two places of decimals, in the several counties which are severally rated. The general average is a pound to every 56¼ acres, or, taking the land-tax at 4*s.* in the pound, at under two millions, to a land-tax of 1*s.* 4*d.* in the pound. The poor-rate at the end of the seventeenth century was therefore a considerable charge. At the same time it is exceedingly unequal. For example, the density of population in Wilts and Yorkshire does not greatly differ. But the incidence of the poor-rate is more than three times as heavy in the former county. So with the northern counties of Durham and Northumberland on the one side and Dorset on the other. The poor-rate in short is, as a rule, lightest in what under the monthly and other assessments are the poorest counties, and as generally the heaviest in those whose contributions by the acre are the heaviest. Now if we allow that there were, with the exception of Middlesex, pretty well the same number of persons in each house all over the country, it follows that the pressure of the poor-rate at the end of the seventeenth century has no relation to the density of the population.

Two causes at least appear to me to have assisted this inequality. If the reader will glance over the figures he will see that on the whole those English counties which from

the beginning were most closely and continuously associated with the Parliamentary party have the highest poor-rates. To this the only exception is Cambridgeshire. I infer therefore that during the Civil War there was a considerable migration into these central and eastern counties. The other cause was the growth or the revival of woollen industries in the eastern and home counties. This is illustrated in the case of Norwich. This city was almost certainly the second in the kingdom before the Great Plague. In 1375, according to an assessment which I have not printed, the city is not valued, but the county, which was next after Middlesex in 1341, is third, being displaced by Oxfordshire. In the grant of 1453, Norfolk is the third city in the kingdom, York being the second. In the assessment of 1503 Bristol is the second city, Norwich the sixth. But at the beginning and end of the great Civil War Norwich is the second city, and in two of the valuations is assessed at nearly three times the amount of Bristol, while in 1503 the rating of Bristol was more than double that of Norwich. Now it is well known that in the sixteenth and seventeenth centuries a new and successful industry was being developed in certain of the eastern counties, notably in Norfolk, where the say industry had been planted by Flemings, and in Colchester, where the bay or baize weaving had been followed with great success by the same persons. Now security and the prospect of employment were stimulants to migration, and the disappointment of the latter hope may have been the principal cause of the excess of the poor-rate in the counties referred to, this being constantly double the average.

The migration of labourers is the plea for the famous statute of parochial settlement enacted in 1662 (13 & 14 Car. II. cap. 12), which made it lawful, on the complaint of churchwardens and overseers, for two justices to remove any person who settles in any tenement under the yearly value of £10 a year (certainly equivalent to an occupancy of £100 to £120 a year at the present time), within forty days after his

arrival, by warrant, to the place where he or she was last legally settled, unless the person give sufficient security for the discharge of the said parish. The incidence of the poor-rate during the reign of Charles II is the explanation, if not the apology, for this atrocious law, which confined the workman to the place of his birth or other legal settlement. The high rate of rental at which the intending settler was rendered liable to removal, also seems to imply that the design of the Act was to check commercial competition, a fact which is further illustrated by the vigorous efforts of the say and bay weavers to exclude rivals by establishing onerous conditions on those who entered on the manufacture in Norwich or Colchester.

As the scanty number of hearths to a house, especially in the counties of Northumberland, Durham, Cumberland, York, Lancashire, and Lincoln, points to the backward condition of these districts, for in each of them there is less than one hearth and a-half to each house, so the number of such conveniences in Devon, Dorset, Somerset, Kent, and Sussex, where more than two hearths are given to each house, indicates that considerable progress was being made in those counties. In Middlesex of course the number of hearths to a house is highest, and in all likelihood, this county, including all London north of the Thames, contained a population of about 500,000 persons; and including Southwark, which in 1649 was reckoned the third borough in opulence throughout the kingdom, 8,000 to 10,000 more might be added to the number.

The population of London had for the times become considerable, its activity incessant, its wealth such that it was probably second among commercial cities to Amsterdam only. But the health of the city was far from satisfactory. The deaths, if one can infer from the Bills of Mortality published by Houghton, considerably exceeded the births; and if this diligent person is accurate in his figures, the population of London was sustained only by constant immigration. It was subject to frightful visitations of the plague, the disease which first appeared in 1348. The most severe and deadly of

these was in 1665, and though the great fire of the year following purified the city in some measure, yet the disease was not finally rooted out for a generation afterwards. And as the plague was an occasional visitor, so typhus, or spotted fever as our ancestors called it, was the cause of the largest number of deaths in ordinary years.

The filthiness of London was incredible. The approach to the City from the West was over a river of filth, the Fleet. There were two minor abominations in the Strand, crossed by bridges. There was no real drainage, and every square foot of London was polluted by the dead and the living. Even the water-supply obtained by the City from Paddington, and later on by the energy of Middleton from Amwell, was tainted by the medium through which it had to pass. The city, which when it had only a tenth or twentieth of its numbers contained numerous open spaces, was beginning to be densely peopled, and the gardens of the citizens and the Companies to be occupied by buildings, the streets being narrow and hardly ventilated. Open markets were held in spaces still known, and in many others which have long ago been cleared of such business, or such nuisances. The site of the Mansion House, and of the space between the Royal Exchange and what was afterwards to be the Bank, was one of these markets, chiefly for the commonest kind of provisions and coarse vegetables. The streets, unpaved and uncleansed, were at the best of times ankle-deep in pestiferous mud, or pestiferous dust. And within a short distance of all London wealth were the principal haunts of all London criminals, the numerous 'Liberties' of the City and its suburbs. Even in Paris, already the centre of fashion, the city from which would-be despots drew their maxims of government, from which place-hunters derived the precedents and practices by which the public was plundered, and beaux imported wigs and brandy, the streets were commonly impassable. A century after the English Revolution, Arthur Young, in his Tour in France, tells us that there were no pavements in the streets, and that

the visitors to the hotels of the nobles, where the past had been abandoned and the future was to be reconstructed by the wisdom of the aristocracy, and in the interests of humanity or of the social contract, must either wade through filth to their knees, or call a coach. It is possible that London in 1689 was not so squalid as Paris in 1789.

The contrast between labour and poverty had become so marked in the seventeenth century that the discussion of its details must be postponed till I deal with the condition of the former in my chapter on wages. But the condition in which the property of the smaller class of owners was placed by custom or by law was marked by such signal changes, that I must needs say something about the laws of the Restoration and the action of Parliament. Parliament was now dominant, for the first revolution had disabled the prerogative, and made the restored monarchy a mere political superstition, harmless to institutions, and except for a time to corporations, but full of danger to private liberty, and even to the property of the weak.

The great landowners of the Restoration were determined to lose no opportunity which the situation gave them of strengthening and improving their position. They emancipated their estates from feudal dues at the expense of the general public. They tied the labourer to the soil by the law of parochial settlement, making the annual occupation of so high an amount as to effectually curtail migration. They first permitted the export of corn when its price did not exceed in wheat 48*s.*, barley or malt 28*s.*, oats 13*s.* 4*d.*, rye 32*s.*, beans and peas 32*s.*, with the avowed object of encouraging tillage; and while they were at or under these prices, they fixed the import duties of wheat at 5*s.* 4*d.*, rye 4*s.*, barley and malt 2*s.* 8*d.*, oats 1*s.* 4*d.*, beans and peas 4*s.* (15 Car. II. cap. 7). They devised (17 Car. II. cap. 7) new and speedy remedies for the recovery of rent. They prohibited (18 & 19 Car. II. cap. 2) the importation of cattle from Ireland, with the avowed object of keeping up rents, declaring that such a trade is a public and common

nuisance; and by the fourth chapter of the same session enacted the well-known law directing the burial of all persons in woollen materials. Again, by 22 Car. II. cap. 13 they fixed the import duties on wheat at 16*s.* when the price did not exceed 53*s.* 4*d.* a quarter, and at 8*s.* when it stood between that price and 80*s.*; that on rye at 16*s.* when the price was at or below 40*s.*, on barley and malt at 16*s.* when the price is not above 32*s.*, on oats at 5*s.* 4*d.* when the price is at or below 16*s.*, and at 16*s.* on beans and peas when the price does not exceed 40*s.*; and further enacted that when the price of corn is above any of these rates, the old customs shall be paid, and permitted the exportation of meat and dairy produce however high the price may be. As a consequence of these laws, fire-raising and cattle-slaying became common, and were made capital felonies. They gave special advantages to the heir-at-law, under the Statute of Distributions, 22 & 23 Car. II. cap. 10.

By 29 Charles II. cap. 3, the famous statute for the prevention of frauds and perjuries was passed. The history of this Act is singular. It was introduced for the first time in the Lords on April 14, 1674, read a second time and committed on April 15, and reported on May 10; Lord Aylesbury stating that the Committee had made amendments in it upon the advice of the Judges. It was passed on May 12, and sent to the Commons. But as the Commons were in the heat of their quarrel with the Lords over the case of Shirley and Fagg, no notice was taken of the bill, and the Houses were prorogued on June 9.

On October 13, 1675, the Houses reassembled, and the King in his speech alluded to the bill which was dropped in the previous session. It was reintroduced in the Lords on October 14 and read a first time, and committed on November 12, the Lord Chief Baron and Mr. Baron Littleton being required to assist the Committee. But it went no further, the Houses being prorogued again on November 22, till February 15, 1677. On February 17 it was read a first time, read a second time and committed on February 19; on this occasion

the Chief Justice of the Common Pleas, Justices Windham, Jones and Scroggs being directed to assist. It was reported with amendments on March 6, read a third time on March 7, and sent the same day to the House of Commons. Here it was read a second time and committed on April 2. On April 11, the Committee reported that they had made several amendments to the bill, with all which except one, to make it a temporary act, the House agreed, passed the bill, and returned it to the Lords. These amendments were agreed to, and the royal assent was given on April 16, when the Houses adjourned.

The first clause of this Act provides, that 'from and after June 24, 1677, all leases, estates, interests of freehold or terms of years, or any uncertain interest of, in, to, or out of any messuages, manors, lands, tenements, or hereditaments made or created by livery of seisin only or by parole or not put into writing and signed by the parties or their agents so making or creating the same lawfully authorised by writing, shall have the force and effect of leases at will only, and shall not either in law or equity be deemed or taken to have any other or greater force and effect, any consideration for making any such parole leases, or estates or any former law or usage to the contrary notwithstanding.'

Of course the obvious and natural interpretation of this clause, according to the practice of modern times, when statutes have no retrospective effect, and actual rights, however acquired, are held to be sacred, is, that the ancient forms of conveyance were to be valid as far as concerned all interests created before June 24, 1677, but were to be nugatory afterwards. But I have long been convinced that the clause was intended to destroy, and succeeded in destroying or reducing to tenancies at will, those numerous freeholds which had been created under fee-farm rents, and by ancient forms of conveyance, and were not fortified by documentary evidence. Between the Restoration and the Revolution there is an extraordinary disappearance of those numerous freeholders whom one reads

of so frequently in the times of the first two Stewart kings. They are frequent enough in the rentals and terriers of the earlier period under the corporations whose estates I have been able to consult, they disappear and the corporation becomes the sole proprietor by wholesale towards the end of the period. Now the corporations did not buy them, for their income was rarely in excess of their necessary expenditure even on very plain fare, to say nothing of the fact that the purchase money would have appeared in the schedule of the necessary or extraordinary expenses, and does not. The fact that now-a-days such a legal confiscation could not be possible counts for nothing in dealing with the interpretation of legal rights two centuries ago, and the facts that the Committee to whom the bill was referred when it came from the Lords were instructed to take precautions against attorneys, and that they were anxious to make the Act only temporary, are hints that the measure contained something which is not on the surface. It is to be observed that the Act does not, as was customary at the time, render valid such ancient conveyances as had been made informally before this date; and I am disposed to believe that at the time the measure was passed there was an intention to deprive small freeholders at customary rents of their holdings. Long after this time, unscrupulous landowners made use of legal process, and were constantly successful in the attempt to deprive freeholders of estates of which they had documentary evidence; they would be far less scrupulous at the time in which this statute was enacted, and when in an Act of Parliament of undoubted necessity and usefulness it was possible to insert a clause which would satisfy a landowner's greed.

Among Davenant's essays is one on the people of England[1], in which the author states that he had the advantage of obtaining the calculations of Gregory King, the Lancaster Herald. These bear on the population of England and its probable increase. Thus King, having estimated as I believe on perfectly good grounds the number of inhabitants in England and

[1] Whitworth's edition, vol. ii. 175.

Wales at $5\frac{1}{2}$ millions, concludes that in 1800 they will amount to 6,420,000, and in 1900 to 7,350,000, a calculation which has been far more than verified by facts. He considered that the kingdom contained 39,000,000 acres, an estimate which is 1,700,000 more than the fact, but he had no means of arriving at the area of the several counties. He believes that the population would increase annually by about 22,000, were it not for the region included in the bills of mortality where the annual decrease is 2000 persons a year, London requiring at least that immigration in order to keep up its population. The population of what lay within the bills of mortality is 530,000, of the cities and market towns 870,000, of the villages 4,100,000, so that the county had nearly three-fourths of the population. The tax on marriages gave him the information that the proportion of marriages in the first of these was 1 in 106, in the second 1 in 128, in the third 1 in 141. The births in the first, 1 in 26·5, in the second 1 in 28·5, in the third 1 in 29·4; while the burials in the first are 1 in 24·1, in the second 1 in 30·4, in the third 1 in 34·4. He furthermore concludes that the males to females are in London 10 to 13, in the cities and towns 8 to 9, and in the villages 100 to 99.

King calculates that the number of persons under 16 years of age is 2,240,000, and of those above 16 at 3,260,000, and of those under 10 years 1,520,000. In London he concludes that 33 per cent. of the population is under ten years of age, in the country towns 40 per cent., and in the villages 47 per cent., an estimate which he derived from comparing the births and the burials; and he is in accordance with what we should expect to find from the insalubrious condition of London. According to these figures, then, the death-rate in London was close upon 41·5 per thousand, and that in the country villages a little over 29 per thousand.

Davenant has printed another exceedingly curious estimate, also made by King. It consists of nine columns: the first of the number of families in different classes and callings, the basis of this calculation having no doubt been the poll-taxes;

the second is the number of persons in a family, derived probably from the same source; the third is the product of the first and second multiplied together; the fourth is the yearly income of each family; the fifth is the product of the first and fourth multiplied, and the sixth is the rate of the fifth divided by the first; the seventh and eighth are necessarily conjectural; they are of the yearly cost of each person to a family and the yearly saving of each; the last is the sum of the difference between the seventh and eighth, and the aggregate is the yearly accumulation of wealth in the country, which he sets at £3,023,700. This is all derived from 500,586 families. These estimates are no doubt primarily gathered from the numerous direct taxes levied in the reign of Charles II.

King tells us that the average income of a temporal lord is £3200, of a bishop £1300, of a baronet £880, of a knight £650, of an esquire £450, and of a gentleman £280; and as these persons derived their income from land, and as the rent of land was about one-tenth of what it stood at in recent times, it is very likely that King was here pretty accurately informed. But I cannot but think that he greatly underrated the average income of merchants on a large and a small scale, which he sets down at £400 a year and £198, though he credits them with considerable powers of saving. One may doubt too whether the earnings of lawyers were not on an average more than £154 a year, though the fees paid even to eminent counsel were very moderate. It seems to me also, that the income of eminent and less richly endowed clergymen, £72 and £50, is understated.

King gives a total of 160,000 freeholders, the better off with an income of £91 a year, the poorer with one of £55, and 150,000 farmers with one of £42 10*s*. Shopkeepers are credited with an income of £45 a year; artisans with one of £38; while the average of a naval officer's pay is £80, of a military officer's £60. These with placeholders, whose means are from £240 to £120 a year, and persons engaged in the liberal arts

and sciences, at £60, constitute the more opulent and saving classes. Of all these, King concludes that the bishops save the most, viz. £400 a year on an average, the merchants next, and the farmers least per head of their families.

But there is to be made a deduction from the saving power of these persons. 2,675,520 persons increase the wealth of the country, 2,823,000 decrease it. This class comprises seamen, labourers, cottagers, and soldiers, whose income is less than their expenditure. To these King adds vagrants, and concludes that these diminish the public wealth by about £622,500 a year, this sum being plainly the ordinary amount of the poor-rate. It is not stated, but it seems certain that King included disbursements for taxation in his estimate of a family's annual expenditure. Some of the calculations, as the artisan's earnings at £38 a year, or a little over 14*s.* 7*d.* a week, and the earnings of a labouring family at £15 15*s.* a year, or a fraction over 6*s.* a week, correspond pretty closely with what I have noted as to the wages of labour.

Now if these calculations are accurate, they show that in this time the earnings of the mass of the people were insufficient for their existence. King estimates that the income of labourers falls short of their needs, after setting the cost of their maintenance at £4 12*s.* per head, and that of cottagers at the very low amount of £2 5*s.* a year. He makes out that there are 849,000 families in this condition, and it is plain, though he does not seem to have drawn the inference, that wages had fallen by excess of population. The facts again disclosed in this curious estimate of King's go far to explain the extreme frequency of crimes against property which, as one sees from authors like Luttrell, characterised the times[1]. More than half the families in the country were absolutely short of the bare necessaries of life.

Neither King nor Davenant seems to be struck with the fact

[1] The Act of 22 & 23 Car. II. cap 10, making the arson of corn stacks and malicious killing of cattle a capital felony, contains the strange alternative that the convict may elect to be transported for seven years.

that the labour of those on whom the rest of society depended had such a scanty share in the division of the produce. The accumulation of wealth was the only matter which interested them, and the family which could not save was treated as an unproductive consumer, or in King's phrase, one who decreased the wealth of the kingdom, or in Davenant's language, was a burden to the public, for he dwells on the fact that the majority of the people depend on and subsist by the minority, '500,000 families contributing to the support of 850,000 families[1].'

King estimated the arable land in England and Wales at nine million acres, at a rent of 5*s.* 6*d.*; twelve millions of pasture and meadow, at 8*s.* 8*d.*; three millions of woods and coppices, at 5*s.*; three millions of forests and parks, at 3*s.* 8*d.*; ten millions of barren land, at 1*s.*; one million occupied by houses, gardens, orchards, churches and churchyards, and another million under water or devoted to roads. The whole rental of the country he puts at twelve millions. He reckons the corn produced annually at ninety million bushels, or rather more than an average of eleven bushels an acre, 'in a year of moderate plenty,' when the value would be £11,338,600. The rest of the annual produce of land is put down at twelve millions, the value of the live stock at £18,287,633, and of minor products nearly three millions more.

Davenant states as an unquestionable fact that rents had more than doubled between 1600 and the time at which he was writing (1699). It seems to me that the average rent which he gives of arable land is too high, for nearly at this time the Belvoir estate was let at an average of 4*s.* 1½*d.*, and the land included in this estate is certainly above the average quality. It is not easy to see, moreover, how land which produced on an average not more than 25*s.* 3*d.* worth of corn, from which had to be deducted tithe and seed corn, could bear a rent of 5*s.* 6*d.* after the charges of cultivation are

[1] We must remember that in 1685, 554,631 houses had only one hearth. Davenant, ii. 203.

accounted for. It is true that King makes the farmer's scale of living the lowest in his schedule of productive labourers and his saving power the least. I may add that if the farmers in the list rented half the arable and pasture, their average holding would have been *66·66* acres, the remuneration of the farmer being according to King £42 10*s.* a year. Such an income indicates a very small amount of capital to the acre, even if the amount covers all the farmer's outlay except the maintenance of himself and his family.

The estimate which King gives of the price of wheat in a year of moderate plenty will not be found to be borne out by the corn averages which I shall treat of in a subsequent chapter. King makes it 3*s.* 6*d.* a bushel, or 28*s.* a quarter. Now my average for the whole period before me, in which my cheap years correct my dear years, the general result indicating very moderate plenty, is 39*s.* 0½*d.*, or for the whole century, 1603–1702, 41*s.*, i.e. from 4*s.* 10½*d.* a bushel to 5*s.* 1½*d.* Of course with such prices the power of the farmer to pay an increased rent must have been enlarged.

It would have been of great convenience to my enquiry if Davenant or King had specified the periods at which the doubling of rent between 1600 and 1700 had occurred. The former states that this increase took place 'by the help of that wealth which has flowed in to us by our Foreign trade.' But unless, as he hints is the case, the owner or purchaser of land employed his newly-gotten wealth in materially improving his estate, it is not easy to see how rents could have increased, except by a disastrous competition on the part of the occupiers. That considerable improvements were made in the cultivation of land, and in particular by constantly turning common fields into severalty, is clear, if only by the discontent the practice caused among the poorer commoners, discontent occasionally breaking out into riot. Great works were undertaken at this time, as for instance the drainage of the Bedford Level and the Cambridgeshire and Lincolnshire fens, these being carried out under Acts of Parliament. And I conceive

generally that the traditional relation of landlord and tenant in England, under which all improvements not immediately recoverable by the annual crop were effected at the expense of the landlord, is the explanation of the rise in rent which my author affirms to have been made.

The gloomy experiences of the seventeenth century, in which as a rule the price of grain was persistently and almost progressively high, suggested to Gregory King's mind that most important law, which is not indeed so much regarded as it should be in discussing the causes of high and low prices. The law is, that when supply falls short of demand by a fraction, the resultant rise is a much higher fraction; and conversely, when demand falls short of supply, a corresponding or analogous fall takes place, the variation being intensified by the urgency of the demand and the difficulty of supplementing the supply, though the rule affects production of all kinds. King's formula is as follows:—

Defect 1 tenth		3 tenths.
„ 2 tenths	raises the price	8 tenths.
„ 3 tenths	above the common	16 tenths.
„ 4 tenths	or average rate	28 tenths.
„ 5 tenths		45 tenths.

With the view of avoiding such risks, the Dutch, who imported by far the largest quantity of food which they consumed, built vast stores and granaries, in which they laid up in cheap years great quantities of corn against the risks of dear times.

Undoubtedly, a considerable part of the people of England were engaged in the woollen manufacture, and to this we must ascribe the great increase of population in counties which a century or a century and a-half before were barren and unpeopled. By 4 & 5 James I. cap. 2 we get one insight into the distribution of this trade. The object of the Act was to keep up the quality of the cloth which was manufactured in different counties and towns. It may be concluded that, whether it was promoted or hindered by the numerous

statutes enacted to maintain the credit of English products, the industry grew rapidly, for we are told that by the end of the century two-thirds of our exports were woollen fabrics, and the secret that the climate of England was peculiarly adapted to the production of woollen goods was discovered and insisted on[1].

Woollen cloths were constantly made from wool which had simply been washed on the sheep's back, and were afterwards cleansed, fulled and shorn. The craft of the fuller and the use of the fulling mill was and remained for a long time a distinct industry from that of the spinner and weaver. It seems to have been a practice, and it was conceived to be a dishonest one, to strain woollen cloths on tenters, and by these means to increase the length, diminish the breadth, and weaken the substance of the fabric. Hence the Act referred to is entitled 'An Act for the true making of Woollen Cloths,' and it prescribes the length, breadth, and weight in the pieces of the different kinds or qualities of produce, and inflicts penalties for violations of the law.

We find that Kent, York, and Reading made one kind of cloth, the piece of which should be from 30 to 34 yards, the breadth 6½ quarters, and the weight, when scoured, milled and dried, should be 66 lbs. The cities of Coventry, Worcester, and Hereford had another industry of slightly lighter fabric. Plunkets, azures, and blues, long and white cloth, were manufactured in Norfolk, Suffolk and Essex, besides bay, say and serge. Fine short white and short white were made in Suffolk. Plunkets and handywarps were the produce of Wilts and Somerset. Then there were short Yorkshires. Broad listed whites and reds were made in Wilts, Gloucester, Oxfordshire, and East Somerset, as were also narrow whites and reds. Fine cloth was the produce of Wilts, Gloucester, Somerset and Oxfordshire. Dunsters were made in West Somerset. Narrow Somerset was another product of the

[1] See for a remarkable conversation between Davenant and Bishop Burnet on this subject, Davenant's Works, vol. ii. p. 235.

county. There were broad and narrow Yorkshire cloths. Kersies or dozens, the former cheap, straits, plain, and greys were made in Devonshire. Ordinary Penistones and forest whites came from the Midlands. Cogware, Kendal, and Carpmael from Westmorland: Kersies called Washers or Washwhites were made in Yorkshire, Lancashire, and elsewhere. In all these cases the law prescribes length, breadth, and weight, a survey and marking by proper officers, and in many cases, the sending the stuff to Blackwell Hall, the London cloth mart, close to the Guildhall. The value of the wool shorn in England annually at the end of the seventeenth century was set at two millions, and of the cloth manufactured from it at eight millions. It is to be regretted that at this time the English parliament, under the plea or pretence that *Lucrum cessans est damnum emergens*, stopped the export of Irish woollens.

Towards the conclusion of the century, calculations were made as to the income of English industry and trade. It was reckoned at 43 millions, that of France at 81 millions, and that of Holland at 18½ millions. It is probable that at the same time the population of France was treble that of England. From these estimates, and the proportion which taxation bore to income, the publicists of the day made alarming predictions. Before the Revolution the taxation was a twentieth part of the national income. After the Peace of Ryswick, it amounted to one-eighth of the annual resources of the kingdom. But there is much reason to believe that the annual income was greatly underrated. The actual grants made during the first war with France, and after its completion in order to provide for arrears, were calculated to have amounted to about 48½ millions. In 1697 the grants amounted to nearly twelve millions.

I have constantly noticed that the health of a people has been seriously affected by the miseries or sufferings of neighbouring nations. I am therefore disposed to connect the constant recurrence of the plague in the seventeenth century with

those destructive and disastrous wars of religion which extended with hardly any cessation from the middle of the reign of Charles the Fifth to the Peace of Westphalia. To the dynastic war which followed after an interval in Western Europe, I attribute the severity with which a comparatively new and most formidable disease, the small-pox, attacked the Western nations. It is true that the filthy habits of the English people materially assisted the spread of the disease, and the poverty of the working classes in the seventeenth century must have made them liable to the attacks of epidemics. Davenant expressly says that in dear years many of the people, in spite of the poor-law, perished by famine. I suspect, and with good reason, that this law was not very generously administered in the northern counties.

The quarter sessions' assessment of wages was generally put into very effective operation. Some of these have been collected and printed by Eden in his History of the Poor. One of them is for the West Riding of Yorkshire in 1593, and another in the same year issued by the Mayor of the city and county of Chester. In both these cases, interpreting the money allowances by the price of provisions, the labourer could hardly have sustained life, and the artisan could have had a narrow margin. In 1597, a year of serious famine, the same Mayor issued a second schedule, owing as he says to the scarcity. But the wages are only slightly increased.

In 1610, the Rutland magistrates made their assessment, as they had done fifty-six years before, in a proclamation, which I printed at length in my fourth volume, p. 120. Now in 1564 wheat was 19*s.* 9¾*d.* a quarter, malt 10*s.* 8*d.*, oats 7*s.* In 1610[1], the price of wheat was 35*s.* 2½*d.*, of malt 22*s.* 3½*d.*, of oats 12*s.* 4½*d.* In the first assessment the artisan was to have 9*d.* a day, the labourer 7*d.* In the second the wages are from 10*d.* to 9*d.* for artisans, labourers 7*d.*, these being in all cases

[1] The reader must be reminded that if he turns to the corn averages he will find these to be the prices of 1609, 50 and 60, &c. But my year is from September to September, and these assessments were made in the April after September 1609, &c.

summer labour. The price of food was increased by about 75 per cent., labour was kept at nearly its old rates.

In 1651, the Essex magistrates fixed the wages for the county. They raised them decidedly. It is true that wheat was 55*s.* 4*d.* the quarter, malt 26*s.* 6½*d.*, and oats 13*s.* 9¼*d.*, oatmeal being 65*s.* 7*d.* But the county magistrates under the Commonwealth were more generous than they were under the Monarchy, for the wages of labour are raised from fifty to a hundred per cent.

In 1661, the Essex magistrates again met and issued their schedule. It does not differ materially from what it stood at ten years before. At Easter, 1661, the price of wheat, barley and oats did not materially differ from that at which they stood at ten years before.

In 1682, the Suffolk magistrates met at Bury and put out a schedule, which is lower than that of thirty years before in a neighbouring county. Wheat was 36*s.* 0¾*d.*, malt 25*s.* 5½*d.*, oats 16*s.* 3½*d.*, and oatmeal 69*s.* 10*d.* in the year 1681–2.

On April 9, 1684, the Warwickshire magistrates put out their assessment. In this year, 1683–4, the price of wheat was 37*s.* 4½*d.*, of malt 22*s.* 5¾*d.*, of oats 15*s.* 5*d.*, of oatmeal 61*s.* Here the artisan is to have 1*s.* a day, the labourer 8*d.*, and the hours were twelve in the summer, and from daybreak to night for the rest of the year, i.e. from the middle of September to the middle of March. If the workman is absent he is to be fined a penny an hour, i.e. about 50 per cent. above his earnings when present. Those who give more wages than the prescribed assessment are to be fined £5, and be imprisoned for ten days; they who take more are to be imprisoned twenty-one days; and any retainer, promise, gift, or payment of wages in contravention of the order is to be void and of no effect. This is the last assessment which I have seen within the period before me.

No one can I think doubt that it was the purpose of the magistrates to grind the wages of labour below the level of bare subsistence, and that to this persistent policy must be as-

signed the beggarly condition of those whom Gregory King declares to be a decreasing element in the public wealth. And here I must express my conviction that the English poor-law has been on the whole the worst enemy of the English workman that has ever existed. Elizabeth's councillors conceded it in sheer despair. Everything was tried before this was tried—voluntary requisitions, involuntary requisitions, compulsory payments enforced on reluctant contributors, the experiment of 1597, and the temporary expedient of 1601. I do not indeed doubt that the English Government was incomparably more humane and generous to labour than any other European system was. It had been accustomed to regulate prices in the interest of the poor, and it was only natural that it should regulate wages in the interest of employers. The nobles and gentry of sixteenth and seventeenth-century England imagined that they were, quite apart from their public services as Englishmen, which cannot be disputed, valuable elements of society as landowners. Now to be efficient agents in the political system, they had to increase their means. But they could not increase them, except at the expense of labour. The indestructible powers of the soil, on which Ricardo bases his theory of rent, are a fiction. The real fertility of land is the progressive skill of the husbandman. The richest soil may be exhausted by over-cropping in a very short time, the poorest, if it be capable of improvement, may be made a garden by judicious treatment. Now it is true that great progress was made in husbandry in the seventeenth century. But it is also certain that the progress was local, spasmodic, and risky. Near a century after the date with which these volumes close, Arthur Young laments that an agriculture on which Hartlib and his contemporaries insisted had been so little diffused in England. For the danger to the experimental agriculturist, a danger commented on from the time of Fitzherbert to our own experience, is that the English law allowed a landowner to appropriate what is called by a euphemism the indestructible powers of the soil, but is in reality the intelligence and the

outlay of the tenant. No system can be more self-condemned than that in which the occupier prefers the poor returns of the *cultura annua* under a tenancy at will to the better prospects of an agricultural lease, with an adequate security.

Bearing in mind that under the agricultural system on which Gregory King commented, the average produce of corn in England, all kinds included, was only reckoned at ten bushels an acre,—an under-estimate I believe, as the average rate of production in the fifteenth century (vol. iv. p. 39) is only a little under thirteen bushels for the same kinds of grain which Davenant mentions,—the question occurs, how rent can have risen from *6d.* an acre to *5s. 6d.*, as King makes it rise; though here I think that he has exaggerated the rent, as he minimised the produce. Now it is plain that if the cost of production had increased *pari passu* with the price of the product, the margin for natural rent would not have widened. If the average price of wheat for example during the epoch 1401–1540 was *6s.* a quarter and that of the same grain between 1603 and 1702 was *41s.*, if the cultivable area was not more productive in quantity than it was in the fifteenth century,—and Gregory King makes it less productive,—and if the cost of production and the farmer's profit did not diminish during the period, one cannot easily see how rent could have risen, except at the cost of profit or wages, or both.

Now I will not anticipate, at this part of my enquiry into the history of agriculture and prices during the hundred and twenty years which are comprised in these volumes, what was the position of the labourer as illustrated by the wages he received and what was the condition of the farmer as indicated by the price of the articles he used, the charges inevitably put on his operations, and the price of what he sold. These topics are reserved till I deal with the wages of labour and the profits of agriculture. But it is not possible, in that chapter of this work which deals with the distribution of wealth, to omit all notice of the condition of the husbandman and the labourer. The gains of the former are exceedingly

small, according to King. The wages of the latter were so scanty that they had to be supplemented by rates. Now in 1885, if we deduct from the revenue the interest on the public debt, the cost of maintaining the poor will be found to amount to a little over one-eighth of the imperial expenditure. But at the Revolution the cost of maintaining the poor is about one-third of the revenue received under identical conditions[1]. It is impossible to doubt that the rents of the seventeenth century had certainly been obtained by the forcible depression of labour, and probably also by the curtailment of farmers' profits. It must have been from these sources that the rent of land rose, as our informants assure us it did, during the seventeenth century from six to twelve millions annually.

The student of history dwells with peculiar interest on the seventeenth century. At its beginning it is a wonderful epoch of intellectual vigour. At the middle of the century the military prowess of England is as great as it was in the most successful times of the Plantagenets. Its conclusion was a period in which public morality and public liberty reasserted themselves, not indeed with that austere determination which characterised the age of the Commonwealth, for the taint of the restored Stuarts infected public life for generations, but on a more lasting and progressive system than the founders of the Commonwealth could frame. In every department of human activity, men made irreversible progress, The seventeenth century was the age of the greatest English poets, of the first founders of physical and mathematical science. It was striving, with no uncertain aim, after the principles of those mechanical arts on which the later progress of human society depended. It laid the foundations of the philosophy of law, the philosophy of society, and the philosophy of mind and morals. It discussed the principles of government, of finance, of monetary science. The seventeenth century founded the

[1] In 1885, 68774 to 8415; in 1688, 2001855 to 665362. In the first set of figures I have omitted the last three in the original.

Bank of England, from the conduct and success of which the whole theory of subsidiary currencies is derived. It made England the first mercantile power in Europe, and put its manufactures on the most solid and substantial basis. It formulated with infinite labour, with many rebuffs, and after many errors, the political forces of a representative Parliament and a responsible Government, and has therefore taught all nations what are the conditions, the machinery, the safeguards of constitutional liberty.

So remarkable is the vigour of this age in our own and in the world's history, that the men of the seventeenth century have more personality than the men of any other age. We know more of the statesmen, the poets, the churchmen of this century than we do of those who are far nearer our own time. Shakespeare and Milton have been studied and expounded as no other poets have. Bacon at the beginning of the century, Newton at the end of it, are more familiar to us than any other physicists are. The student of the English constitution is more concerned with the action of Eliot and Selden, Pym and Hampden, Hyde and Falkland, than with that of later statesmen. The leading churchmen and divines in the same age have the same striking personality. The character of Laud has been discussed more than that of any archbishop since the days of Cranmer. The works of the humble preacher o Bedford have been more read than those of any other writer on religious subjects.

There is still a controversy about the merits or misdeeds of Shaftesbury, but no one doubts that his conduct and policy were powerful in shaping the Revolution. The attack on the character of Penn, and the defence of his career, are still matters of interest. Men differ about the political genius of William the Third, but they cannot fail to admit that he developed a new departure in Europe, and few I should think would doubt that he was the worst used king who ever sat on the English throne. One might multiply examples. Great as the historical abilities of Clarendon were, his opportunities

were greater than those of any man who wrote on his own age, and depicted the characters of his contemporaries.

But full as the seventeenth century is of great men, the economist must not lose sight of the fact that this heroic age developed those social problems which are the serious troubles of our own time. The seventeenth century began, or at least developed and made permanent, the misery of the poor. The liberty which the Parliament fought for was not a stake in which the labourer had any interest or any share. It was eminently a rising of the middle classes against absolute theories of government. The labourer was not indeed quite disinherited. But he was becoming a danger to growing opulence by his numbers and by his migrations. He was believed to decrease wealth. He was stinted by quarter sessions' assessments, in which they whose whole interests were committed to the task of getting his labour cheap were allowed by law to fix his wages. A code of criminal law, remorselessly severe, punished his offences against property. The numerous sects now stereotyped and made permanent, chiefly ministered to the dwellers in towns. I suspect that the Habeas Corpus Act and other guarantees of liberty were far more important securities to the wealthy and noble than they were to the labouring poor, and that the peasant and artisan might have invoked these safeguards in vain. These men had no part, probably were entirely indifferent to the great drama of human progress which was being enacted in their midst. As some of their fellow-countrymen were making governments, founding colonies, conquering empires, their lot was getting progressively worse, and their existence was reckoned to be a loss rather than a gain [1].

The tables which follow illustrate the distribution of wealth in England and Wales in the seventeenth century. The first is the Ship Money assessment; the second that of 1641; the third that of March 25, 1649; the fourth that of December

[1] See for a fuller account of the condition of labour in the sixteenth century, my 'Six Centuries of Labour and Wages, chapters 14 and 15.'

25, 1649; the fifth that of 1660; the sixth that of 1672; the seventh that of 1693; the eighth and ninth the order of the counties and towns, with the distribution of representatives in 1653; the tenth the statistics of the hearth-tax; the eleventh that of the poor-rate; the twelfth the Scotch assessment of 1657; the thirteenth the Irish assessment of the same date. The fraction is calculated to two, three, or four places of decimals.

TABLE I.

SHIP MONEY VALUATION OF COUNTIES, 1636.

County.	Assessment.	Acres to £.
	£	
BEDFORDSHIRE	3000	98·507
BERKSHIRE	4000	112·802
BUCKINGHAMSHIRE	4500	103·763
CAMBRIDGESHIRE.....	3500	152·909
CHESHIRE	3000	235·693
CORNWALL	5500	158·636
CUMBERLAND	800	1251·591
DERBYSHIRE	3500	188.229
DEVONSHIRE.....	9000	184.131
DORSETSHIRE	5000	126.405
DURHAM AND NORTHUMBERLAND	2300	813.813
ESSEX	8000	132·569
GLOUCESTERSHIRE	5500	146·382
HEREFORDSHIRE	3500	152·807
HERTFORDSHIRE	4000	97·785
HUNTINGDONSHIRE.....	2000	114·772
KENT	8000	129·927
LANCASHIRE	1000	1219·221
LEICESTERSHIRE	4500	114.269
LINCOLNSHIRE	8000	221·932
NORTHAMPTONSHIRE ...	6000	105·060
NOTTINGHAMSHIRE	3500	150·307
NORFOLK	7800	173·628
OXFORDSHIRE	3500	135·062
RUTLANDSHIRE.....	800	119·781
SHROPSHIRE	4500	183·568
STAFFORDSHIRE	3000	242·823

County.	Assessment.	Acres to £.
	£	
SOMERSETSHIRE	9000	116.348
SOUTHAMPTONSHIRE ...	6000	178.369
SUFFOLK.....	8000	118.460
SURREY	3500	136.800
SUSSEX	5000	187.382
WARWICKSHIRE	4000	140.986
WESTMORLAND	600	809.053
WILTSHIRE	7000	123.583
WORCESTERSHIRE.....	3500	134.904
YORKSHIRE	12,000	318.987
WALES	10,500	451.855
MIDDLESEX	20,180	8.629
	206,980	All England and
Deduct.....	12,800	Wales,
	194,180	180.331

TABLE II.

ASSESSMENT OF 16 CAR. I. CAP. 32.

£400,000 TO BE APPLIED TOWARDS REPRESSING THE REBELLION IN IRELAND.

County.	Assessment.			Acres to £.
	£	*s.*	*d.*	
BEDFORDSHIRE.....	4372	1	0	67.61
BERKSHIRE	5628	14	2	80.01
BUCKINGHAMSHIRE.....	6712	2	6	69.56
CAMBRIDGESHIRE.....	6199	11	1	61.81
ISLE OF ELY	2297	0	0	
CHESHIRE	2841	18	9	223.12
CITY	326	14	0	
CORNWALL.....	10,110	15	9	86.40
CUMBERLAND	633	18	0	1579.45
DERBYSHIRE	2819	1	7½	233.70

Counties.	Assessment. £ s. d.	Acres to £.
Devonshire	29,035 12 3	55.08
Exeter	1049 4 3	
Dorsetshire	7701 2 3	81.34
Poole	80 18 6	
Durham	1309 13 0	475.55
Essex	18,048 9 9	58.76
Gloucestershire	9978 5 5	72.61
City	1108 14 0	
Herefordshire	7146 4 6	74.84
Hertfordshire	7525 10 0	51.97
Huntingdonshire	3533 8 9	64.97
Kent	20,281 15 7½	49.21
Canterbury	818 14 9	
Lancashire	4353 11 3	280.25
Leicestershire	3848 5 0	133.62
Lincolnshire	12,951 15 10½	131.74
City	532 1 9	
London	42,476 16 3	3.23
Middlesex and Westminster	12,354 12 9	
Monmouthshire	1588 6 3	231.99
Norfolk	21,908 6 1½	55.38
Norwich	2544 4 6	
Northamptonshire	4869 16 6	129.02
Northumberland	830 2 4½	1161.06
Newcastle	245 14 0	
Nottinghamshire	2913 14 3	174.77
Town	96 10 6	
Oxfordshire	6418 4 9	73.65
Rutlandshire	1053 14 3	90.99
Shropshire	4560 5 3	180.72
Somersetshire	16,879 13 0	58.75
Bristol	927 4 6	
Southamptonshire	12,464 11 9	75.58
Southampton	513 4 6	
Isle of Wight	1713 4 6	
Staffordshire	3743 10 3	190.12
Lichfield	88 7 0	

Counties.	Assessment.			Acres to £.
	£	s.	d.	
SUFFOLK	20,609	17	0	45.98
SURREY	10,914	15	9	43.86
SUSSEX	10,808	1	3	86.68
WARWICKSHIRE	5113	6	3	97.72
COVENTRY	658	2	6	
WESTMORLAND	547	1	4½	887.44
WILTSHIRE	11,704	19	0	73.91
WORCESTERSHIRE	5802	10	6	76.66
CITY	356	4	9	
YORKSHIRE	17,380	5	6	201.17
CITY	1231	4	9	
HULL	419	5	9	
ANGLESEY	418	18	3	461.70
BRECKNOCK	850	13	9	540.72
CARDIGANSHIRE	1008	6	9	439.86
CARMARTHENSHIRE	829	10	9	730.53
CARNARVONSHIRE	348	8	2	1064.00
DENBIGHSHIRE	447	6	9	863.25
FLINTSHIRE	274	5	6	674.87
GLAMORGANSHIRE	1084	17	6	504.60
MERIONETHSHIRE	259	18	3	1481.89
MONTGOMERYSHIRE	1013	12	6	476.65
PEMBROKESHIRE	956	15	6	386.24
HAVERFORDWEST	83	7	3	
RADNORSHIRE	601	19	9	452.04

TABLE III.

ASSESSMENT OF MARCH 25, 1649, OF £90,000 A MONTH FOR SIX MONTHS.

Counties.	Assessment. £	s.	d.	Acres to £.
BEDFORDSHIRE	1010	10	11¾	292.36
BERKSHIRE	1025	13	7½	439.77
BUCKINGHAMSHIRE	1223	2	0	381.78
CAMBIDGESHIRE	2194	4	9½	176.11
ISLE OF ELY	736	7	0¾	
CHESHIRE	517	17	5	1225.44
CHESTER	59	10	10½	
CORNWALL	1842	8	3½	474.27
CUMBERLAND	115	10	2½	8631.66
DERBYSHIRE	513	14	0	1281.70
DEVONSHIRE	5290	19	2¼	302.30
EXETER	191	0	9¼	
DORSETSHIRE	1403	6	4	445.71
POOLE	14	14	11¼	
DURHAM	238	13	0	2604.50
ESSEX	6821	4	1½	155.48
GLOUCESTERSHIRE	1836	12	8½	398.56
GLOUCESTER	183	13	3	
HEREFORDSHIRE	1302	3	4½	410.77
HERTFORDSHIRE	2458	3	2½	159.13
HUNTINGDONSHIRE	1030	15	2½	222.65
KENT AND CANTERBURY	7144	11	7½	145.47
LANCASHIRE	793	14	9	1535.54
LEICESTERSHIRE	701	4	9¾	733.47
LINCOLNSHIRE AND CITY	2457	1	6¾	722.61
LONDON	5861	18	10	22.13
MIDDLESEX AND WESTMINSTER	2282	16	7½	
MONMOUTHSHIRE	289	8	7½	1274.73
NORTHAMPTONSHIRE	887	7	11	710.66
NORFOLK	7144	11	7½	180.23
NORWICH	369	17	2½	
NORTHUMBERLAND	151	5	4	6373.97
NEWCASTLE	44	15	6	

Counties.	Assessment. £	s.	d.	Acres to £.
NOTTINGHAMSHIRE	530	18	10¾	958.24
TOWN	17	11	10	
OXFORDSHIRE	1169	10	11½	404.03
RUTLANDSHIRE.....	192	1	6¼	499.00
SHROPSHIRE	830	19	8½	994.05
SOMERSETSHIRE	3075	17	1½	322.40
BRISTOL	168	19	3¾	
SOUTHAMPTONSHIRE ...	2271	6	8	399.78
SOUTHAMPTON	93	12	1	
ISLE OF WIGHT	312	3	9¼	
STAFFORDSHIRE AND LICHFIELD.....	698	5	1	1043.80
SUFFOLK	7144	11	7½	132.63
SURREY & SOUTHWARK[1]	2021	2	0	236.80
SUSSEX	3969	4	2½	236.06
WARWICKSHIRE	931	15	3¼	541.73
COVENTRY.....	119	18	6	
WESTMORLAND.....	99	13	9¾	4854.32
WILTSHIRE	2132	18	2	405.57
WORCESTERSHIRE AND CITY	1122	5	5	420.82
YORK, CITY & COUNTY	3391	8	9	1104.55
HULL	76	8	1¼	
ANGLESEY	76	6	9	2545.43
BRECKNOCKSHIRE	155	0	4½	2968.76
CARDIGANSHIRE	183	14	10	2409.71
CARMARTHENSHIRE.....	151	3	3	4015.44
CARNARVONSHIRE	63	9	8½	5877.35
DENBIGHSHIRE.....	81	10	3¾	4707.95
FLINTSHIRE	49	19	6¾	3698.08
GLAMORGANSHIRE	197	13	9	2765.12
MERIONETHSHIRE	47	7	3	8195.55
MONTGOMERYSHIRE.....	184	14	0¼	2612.55
PEMBROKESHIRE	174	6	11	2114.16
HAVERFORDWEST.....	15	3	10	
RADNORSHIRE	109	13	11	2473.89

[1] 'Not more than an eighth is to be imposed on Southwark.'

TABLE IV.

ASSESSMENT ON DEC. 25, 1649, OF £90,000 A MONTH FOR THREE MONTHS, AND £60,000 FOR THE NEXT THREE.

These valuations are retained in subsequent taxation.

Counties.	Assessment. £ s. d.	Acres to £.
BEDFORDSHIRE	1200 0 0	246.32
BERKSHIRE	1400 0 0	322.29
BUCKINGHAMSHIRE	1650 0 0	279.96
CAMBRIDGESHIRE	1417 10 0	276.41
ISLE OF ELY	472 10 0	
CHESHIRE	990 0 0	642.80
CHESTER	110 0 0	
CORNWALL	2100 0 0	416.00
CUMBERLAND	138 17 0	7203.40
DERBYSHIRE	1200 0 0	549.00
DEVONSHIRE	3862 0 0	401.19
EXETER	138 0 0	
DORSETSHIRE	1682 10 0	371.78
POOLE	17 10 0	
DURHAM	185 2 8	3364.73
ESSEX	4500 0 0	235.68
GLOUCESTERSHIRE	2091 0 0	350.04
CITY	209 0 0	
HEREFORDSHIRE	1500 0 0	356.54
HERTFORDSHIRE	1800 0 0	217.30
HUNTINGDONSHIRE	800 0 0	286.94
KENT AND CANTERBURY	4700 0 0	221.15
LANCASHIRE	1200 0 0	1016.02
LEICESTERSHIRE	1400 0 0	367.26
LINCOLNSHIRE AND CITY	3500 0 0	507.27
LONDON	6000 0 0	21.70
MIDDLESEX AND WESTMINSTER	2300 0 0	
MONMOUTHSHIRE	600 0 0	614.00
NORTHAMPTONSHIRE	1800 0 0	350.20
NORFOLK	4660 6 0	276.39
NORWICH	240 0 0	

Counties.	Assessment. £	s.	d.	Acres to £.
NORTHUMBERLAND	231	8	4	4576.28
NEWCASTLE	42	0	0	
NOTTINGHAMSHIRE	1161	0	0	453.12
OXFORDSHIRE	1450	0	0	326.01
RUTLANDSHIRE.....	350	0	0	273.73
SHROPSHIRE	1700	0	0	486.18
SOMERSETSHIRE	3500	0	0	297.64
BRISTOL	220	0	0	
SOUTHAMPTONSHIRE ...	2203	11	0	411.62
SOUTHAMPTON	91	9	0	
ISLE OF WIGHT	305	0	0	
STAFFORDSHIRE & LICHFIELD	1200	0	0	607.06
SUFFOLK.....	4700	0	0	201.63
SURREY	2012	10	0	212.80
SOUTHWARK	237	10	0	
SUSSEX	2450	0	0	382.41
WARWICKSHIRE	1422	0	0	352.46
COVENTRY	178	0	0	
WESTMORLAND	92	12	0	5219.80
WILTSHIRE	2500	0	0	346.03
WORCESTERSHIRE AND CITY	1600	0	0	295.10
YORKSHIRE AND CITY...	3913	0	0	957.64
HULL	87	0	0	
ANGLESEY	174	10	0	1105.44
BRECKNOCKSHIRE	465	0	0	989.58
CARDIGANSHIRE	549	0	0	807.62
CARMARTHENSHIRE ...	453	0	0	1338.48
CARNARVONSHIRE	260	0	0	1424.12
DENBIGHSHIRE	350	0	0	1103.00
FLINTSHIRE	174	10	0	1056.60
GLAMORGANSHIRE	590	0	0	928.00
MERIONETHSHIRE	160	0	0	2408.07
MONTGOMERYSHIRE.....	380	0	0	1271.90
PEMBROKESHIRE	522	0	0	708.45
HAVERFORDWEST.....	45	0	0	
RADNORSHIRE	327	0	0	832.19

TABLE V.

Nov. 8, 1660. Proposed Assessment on Counties in lieu of Wardship.

Counties.	Assessment.	Acres to £.
	£	
Bedfordshire.....	1400	211.13
Berkshire	1700	265.42
Buckinghamshire.....	1900	245.75
Cambridgeshire.....	1800	291.77
Cheshire	1400	505.01
Cornwall.....	2400	364.00
Cumberland	400	2503.18
Derbyshire.....	1400	470.57
Devonshire.....	5000	331.44
Dorsetshire	2000	316.01
Durham	700	889.25
Essex	4800	220.92
Gloucestershire	2500	322.04
Herefordshire	1600	334.26
Hertfordshire	1800	217.30
Huntingdonshire.....	900	255.05
Kent	4800	216.55
Lancashire	1600	762.01
Leicestershire	1800	285.67
Lincolnshire	4000	443.86
Middlesex	3000	60.05[1]
Norfolk	4800	282.15
Northamptonshire ...	2500	252.14
Northumberland	700	1784.71
Nottinghamshire.....	1400	375.77
Oxfordshire	1700	277.07
Rutland	380	231.10
Salop.....	1900	434.77
Somersetshire	4000	261.80[2]
Southamptonshire ...	3000	326.74
Staffordshire	1400	505.90

[1] With London, 25.73.

[2] With Bristol, 246.26.

Counties.	Assessment.	Acres to £.
	£	
SUFFOLK.....	4800	197.43
SURREY	1800	265.99
SUSSEX	2600	234.97
WARWICKSHIRE ...	1800	313.30
WESTMORLAND ...	300	1618.11
WILTSHIRE	2700	320.41
WORCESTERSHIRE...	1800	262.31
YORKSHIRE :—		
WEST RIDING ...	2520	660.44
NORTH DITTO ...	1930	
EAST DITTO	1350	
WELSH COUNTIES :—		
ANGLESEY	260	744.05
BRECKNOCK	450	1022.57
CARDIGAN	350	1266.76
CARMARTHEN ...	450	1347.40
CARNARVON	250	1481.09
DENBIGH	450	844.56
GLAMORGAN	700	782.13
FLINT	260	711.17
MERIONETH	220	1751.32
MONMOUTH	800	460.50
MONTGOMERY ...	550	878.55
PEMBROKE.....	500	803.38
RADNOR	240	1133.87
CITIES :—		
LONDON	4000	
BRISTOL	250	

Estimated total £100,020.

TABLE VI.

MONTHLY PAYMENT ASSESSED ON COUNTIES FOR EIGHTEEN MONTHS, BEGINNING FEB. 4, 1672.

Fractions of a £ beyond 10*s.* added below, omitted.

Counties.	Assessment. £	s.	d.	Acres to £.
BEDFORDSHIRE	896	17	9	328.41
BERKSHIRE	1132	6	7	398.60
BUCKINGHAMSHIRE	1315	6	5	355.08
CAMBRIDGESHIRE	1028	0	0	510.88
ISLE OF ELY	349	17	11	381.12
CHESHIRE	801	5	6	882.74
CORNWALL	1540	18	3	566.84
CUMBERLAND	168	6	1	5959.96
DERBYSHIRE	862	8	4	764.27
DEVONSHIRE	3229	19	2	513.06
DORSETSHIRE	1344	10	5	469.90
DURHAM	323	16	9	1921.22
ESSEX	3098	8	10	348.79
GLOUCESTERSHIRE	1808	10	3	445.05
HEREFORDSHIRE	1131	13	4	472.45
HERTFORDSHIRE	1345	16	3	298.02
HUNTINGDONSHIRE	622	14	2	368.42
KENT	3326	16	8	312.72
LANCASHIRE	1006	13	6	1210.74
LEICESTERSHIRE	1084	14	3	473.88
LINCOLNSHIRE	2575	2	0	689.50
MIDDLESEX	2240	10	0	80.42
NORTHAMPTONSHIRE	1413	18	2	445.87
NORTHUMBERLAND	372	0	8	3358.28
NOTTINGHAMSHIRE	873	8	0	602.60
NORFOLK	3370	12	0	401.75
OXFORDSHIRE	1135	10	8	416.12
RUTLANDSHIRE	240	8	11	399.19
SHROPSHIRE	1203	14	2	686.09
SOMERSETSHIRE	2771	10	8	377.78
SOUTHAMPTONSHIRE	2189	8	8	488.90
STAFFORDSHIRE	852	11	8	854.01
SUFFOLK	3298	10	8	257.49

Counties.	Assessment. £	s.	d.	Acres to £.
SURREY	1597	0	2	262.93
SUSSEX	1821	7	9	514.50
WARWICKSHIRE	1192	8	9	473.11
WESTMORLAND	116	0	0	4184.76
WILTSHIRE	1966	17	7	439.80
WORCESTERSHIRE	1053	19	0	447.97
YORKSHIRE	3469	5	2	87.361
WALES.				
ANGLESEY	125	13	8	1535.34
BRECKNOCKSHIRE	282	10	5½	1626.
CARDIGANSHIRE	105	15	9½	4182.89
CARMARTHENSHIRE	272	6	8	2229.15
CARNARVONSHIRE	146	12	2	2518.86
DENBIGHSHIRE	223	10	7	1723.44
FLINTSHIRE	118	17	4	1545.42
GLAMORGANSHIRE	378	17	10	1444.58
MERIONETHSHIRE	100	16	1	3824.66
MONMOUTHSHIRE	390	0	0	944.61
MONTGOMERYSHIRE	276	12	2	1744.85
PEMBROKESHIRE	326	10	0	1232.18
RADNORSHIRE	174	6	8	1564.53
CITIES AND TOWNS.				
LONDON and LIBERTY OF S. MARTIN LE GRAND (with MIDDLESEX)	5092	11	4	24.51
BRISTOL (with SOMERSET)	199	8	4	352.48
NORWICH (with NORFOLK)	180	0	0	381.38
EXETER (with DEVONSHIRE)	115	7	4	495.72
WORCESTER (with WORCESTERSHIRE)	55	9	6	425.75
GLOUCESTER (with GLOUCESTERSHIRE)	39	8	0	435.12
HAVERFORDWEST (with PEMBROKESHIRE)	15	3	5	1174.53
LICHFIELD (with STAFFORDSHIRE)	13	0	0	840.95
POOLE (with DORSETSHIRE)	10	19	8	466.10

England and Wales, 534.27.

The total sum granted is £1,248,750; or, monthly, £69,486 *11.* 2½*d.*

TABLE VII.

ASSESSMENT OF 4*s.* IN THE £, 1693.

Fractions above 10*s.* are added; below, omitted.

Counties.	Assessment.	Acres to £.
	£	
BEDFORDSHIRE	28,555	10.350
BERKSHIRE	41,054	10.991
BUCKINGHAMSHIRE	47,661	9.797
CAMBRIDGESHIRE.....	32,845	15.989
CHESHIRE	28,597	24.725
CORNWALL.....	31,976	27.321
CUMBERLAND	3,174	315.460
DERBYSHIRE	24,094	27.343
DEVONSHIRE	82,086	20.188
DORSETSHIRE	33,116	19.088
DURHAM ..... } ..... NORTHUMBERLAND }	25,147	74.433
ESSEX	90,896	11.670
GLOUCESTERSHIRE	47,524	16.941
HEREFORDSHIRE	20,409	26.205
HERTFORDSHIRE	42,973	9.102
HUNTINGDONSHIRE	15,497	14.818
KENT	83,450	12.455
LANCASHIRE	21,300	57.240
LEICESTERSHIRE	35,088	14.621
LINCOLNSHIRE	72,266	24.568
MIDDLESEX	307,140	.586
NORTHAMPTONSHIRE ...	48,112	13.104
NOTTINGHAMSHIRE	27,276	19.289
NORFOLK	84,730	15.972
OXFORDSHIRE	39,039	12.109
RUTLANDSHIRE.....	5,555	17.246
SHROPSHIRE	29,036	28.449
STAFFORDSHIRE	27,083	26.898
SOMERSETSHIRE	73,729	14.231
SOUTHAMPTONSHIRE ...	55,188	19.573

Counties.	Assessment.	Acres to £.
	£	
SUFFOLK.....	74,202	12.794
SURREY	66,985	7.148
SUSSEX	60,820	15.404
WARWICKSHIRE	39,865	14.146
WORCESTERSHIRE	33,144	14.245
WILTSHIRE	51,672	16.742
WESTMORLAND.....	3,014	161.391
YORKSHIRE	91,621	41.779
WALES	51,256	92.396
TOTAL.....	1,977,714	18.923

TABLE VIII. ORDER OF THE COUNT

	1636.	1641.	March 25, 1649.	Dec. 25, 1649.
1	MIDDLESEX	MIDDLESEX	MIDDLESEX	MIDDLESEX
2	HERTS	SURREY	SUFFOLK	SUFFOLK
3	BEDS	SUFFOLK	KENT	SURREY
4	BUCKS	KENT	ESSEX	HERTS
5	NORTHANTS	HERTS	HERTS	KENT
6	BERKS	DEVON	CAMBRIDGE	ESSEX
7	LEICESTER	NORFOLK	NORFOLK	BEDS
8	HUNTS	SOMERSET	HUNTS	RUTLAND
9	SOMERSET	ESSEX	SUSSEX	NORFOLK
10	SUFFOLK	CAMBRIDGE	SURREY	CAMBRIDGE
11	RUTLAND	HUNTS	BEDS	BUCKS
12	WILTS	BEDS	DEVON	HUNTS
13	DORSET	BUCKS	SOMERSET	WORCESTER
14	KENT	GLOUCESTER	BUCKS	SOMERSET
15	ESSEX	OXFORD	GLOUCESTER	BERKS
16	WORCESTER	WILTS	SOUTHANTS	OXFORD
17	OXFORD	HEREFORD	OXFORD	WILTS
18	SURREY	SOUTHANTS	WILTS	GLOUCESTER
19	WARWICK	WORCESTER	HEREFORD	NORTHANTS
20	GLOUCESTER	BERKS	WORCESTER	WARWICK
21	NOTTS	DORSET	BERKS	HEREFORD
22	HEREFORD	CORNWALL	DORSET	LEICESTER
23	CAMBRIDGE	SUSSEX	CORNWALL	DORSET
24	CORNWALL	RUTLAND	RUTLAND	SUSSEX
25	NORFOLK	WARWICK	WARWICK	DEVON
26	SOUTHANTS	NORTHANTS	NORTHANTS	SOUTHANTS
27	SHROPSHIRE	LINCOLN	LINCOLN	CORNWALL
28	DEVON	LEICESTER	LEICESTER	NOTTS
29	SUSSEX	NOTTS	NOTTS	SALOP
30	DERBY	SALOP	SALOP	LINCOLN
31	LINCOLN	STAFFORD	STAFFORD	DERBY
32	CHESHIRE	YORK	YORK	STAFFORD
33	STAFFORD	CHESHIRE	CHESHIRE	CHESHIRE
34	YORK	DERBY	DERBY	YORK
35	WALES	LANCASHIRE	LANCASHIRE	LANCASHIRE
36, 37	DURHAM / NORTHUMBERLAND	DURHAM / WESTMORLAND	DURHAM / WESTMORLAND	DURHAM / NORTHUMBERLAN
38	WESTMORLAND	NORTHUMBERLAND	NORTHUMBERLAND	WESTMORLAND
39	LANCASHIRE	CUMBERLAND	CUMBERLAND	CUMBERLAND
40	CUMBERLAND			

IN THE SEVERAL ASSESSMENTS.

1660.	1672.	1693.	Numbers in the representative scheme of 1653[1].
MIDDLESEX	MIDDLESEX	MIDDLESEX	12
SUFFOLK	SUFFOLK	SURREY	10
BEDS	SURREY	HERTS	7
KENT	HERTS	BUCKS	8
HERTS	KENT	BEDS	6
ESSEX	BEDS	BERKS	7
RUTLAND	ESSEX	ESSEX	16
SUSSEX	SOMERSET	OXFORD	8
BUCKS	BUCKS	KENT	18
SOMERSET	HUNTS	SUFFOLK	16
NORTHANTS	CAMBRIDGE	NORTHANTS	8
HUNTS	NORFOLK	WARWICK	7
WORCESTER	BERKS	SOMERSET	18
BERKS	RUTLAND	WORCESTER	7
SURREY	OXFORD	LEICESTER	6
OXFORD	WORCESTER	HUNTS	4
NORFOLK	WILTS	SUSSEX	14
LEICESTER	GLOUCESTER	NORFOLK	16
CAMBRIDGE	NORTHANTS	CAMBRIDGE	8
WARWICK	DORSET	WILTS	14
DORSET	HEREFORD	GLOUCESTER	9
WILTS	WARWICK	RUTLAND	2
GLOUCESTER	LEICESTER	DORSET	10
DEVON	SOUTHANTS	NOTTS	6
SOUTHANTS	DEVON	SOUTHANTS	14
HEREFORD	SUSSEX	DEVON	20
CORNWALL	CORNWALL	LINCOLN	16
NOTTS	NOTTS	CHESHIRE	5
LINCOLN	SALOP	HEREFORD	6
SALOP	LINCOLN	STAFFORD	6
DERBY	DERBY	CORNWALL	12
CHESHIRE	STAFFORD	DERBY	5
STAFFORD	YORK	SALOP	8
YORK	CHESHIRE	YORK	22
LANCASHIRE	LANCASHIRE	LANCASHIRE	8
DURHAM	WALES	DURHAM	3
WALES	DURHAM	NORTHUMBERLAND	5
WESTMORLAND	NORTHUMBERLAND	WESTMORLAND	2
NORTHUMBERLAND	WESTMORLAND	WALES	25
CUMBERLAND	CUMBERLAND	CUMBERLAND	3

[1] This column of the representatives is relative to the column of counties immediately preceding it.

TABLE IX.

Order of the Towns.

1641.	1649, March.	1649, Dec.
London	London	London
Norwich	Norwich	Norwich
York	Exeter	Southwark
Gloucester	Gloucester	Bristol
Exeter	Bristol	Gloucester
Bristol	Coventry	Coventry
Canterbury	Southampton	Chester
Coventry	Hull	Southampton
Lincoln	Chester	Hull
Southampton	Newcastle	Haverfordwest
Hull	Nottingham	Newcastle
Worcester	Haverfordwest	Poole
Chester	Poole	
Newcastle		
Nottingham		
Lichfield		
Haverfordwest		
Poole		

TABLE X.

Hearth Books, March 25, 1690.

Counties.	Houses in the several counties.	Acres to houses.	Hearths in each county.	Hearths to houses.
Bedfordshire	12,170	24.28	21,280	1.7485
Berkshire	16,996	26.55	37,550	2.2903
Buckinghamshire	18,688	24.99	35,337	1.8908
Cambridgeshire	18,629	28.19	36,478	2.0012
Cheshire	25,592	27.63	40,865	1.5968
Cornwall	26,613	32.83	54,588	2.0511
Cumberland	15,279	63.66	20,863	1.3655

Counties.	Houses in the several counties.	Acres to houses.	Hearths in each county.	Hearths to houses.
DERBYSHIRE	24,944	26.41	36,901	1.4793
DEVONSHIRE	56,202	29.48	135,230	2.4061
DORSETSHIRE	17,859	35.39	42,951	2.4050
DURHAM and NORTHUMBERLAND	53,345	35.08	66,169	1.2404
ESSEX	40,545	26.16	85,700	2.1112
GLOUCESTERSHIRE ...	34,476	23.35	61,909	1.7957
HEREFORDSHIRE	16,744	31.94	27,998	1.6722
HERTFORDSHIRE	17,488	22.36	39,064	2.2337
HUNTINGDONSHIRE...	8,713	26.34	14,323	1.6553
KENT	46,674	22.27	107,576	2.3039
LANCASHIRE	46,961	25.96	68,923	1.4634
LEICESTERSHIRE	20,448	25.01	31,606	1.5456
LINCOLNSHIRE	45,019	39.44	66,119	1.4688
MIDDLESEX	111,215	1.619	365,568	3.2780
NORFOLK	56,579	23.93	102,467	1.8289
NORTHANTS	26,904	23.43	43,504	1.6170
NORTHUMBERLAND, taken with DURHAM.				
NOTTINGHAMSHIRE...	17,818	29.52	30,695	1.7227
OXFORDSHIRE	19,627	24.08	42,016	2.1407
RUTLANDSHIRE	3,661	26.17	5,998	1.6383
SHROPSHIRE	27,471	30.07	45,586	1.6594
SOMERSETSHIRE	45,900	22.81	106,462	2.3412
SOUTHAMPTONSHIRE	28,557	37.47	60,419	2.1147
STAFFORDSHIRE	26,278	27.70	42,120	1.5857
SUFFOLK	47,537	19.93	88,797	1.8679
SURREY	40,610	11.79	88,685	2.1838
SUSSEX	23,451	39.95	52,617	2.2868
WARWICKSHIRE	22,700	24.84	38,148	1.6805
WESTMORLAND	6,691	72.55	20,065[1]	2.9988
WILTSHIRE	27,418	31.18	57,542	2.0999
WORCESTERSHIRE ...	24,440	19.32	39,455	1.6143
WALES	77,921	60.76	127,751	1.6395
YORKSHIRE	121,052	31.64	174,202	1.4555[2]
TOTAL	1,319,215	28.29	2,563,527	1.9432

[1] This is I am persuaded a misprint for 10,065. If my conjecture is correct, the result is 1.5042.

[2] In 1861, the inhabitants to a house in England and Wales were 5.3660, and the acreage to each house 9.98.

TABLE XI.

Poor-rate in Counties. Poor-rate to Acreage.

Latter part of Charles II.

Counties.	Assessment.	Acres to £.
	£	
Bedfordshire	6,911	42.77
Berkshire	9,800	46.04
Buckinghamshire	14,800	31.55
Cambridgeshire	9,128	57.21
Cheshire	5,796	121.99
Cornwall	9,257	94.03
Cumberland	4,988	200.73
Derbyshire	7,953	82.83
Devonshire	34,764	47.96
Dorsetshire	13,885	45.52
Durham and Northumberland	13,620	137.43
Essex	37,348	28.39
Gloucestershire	19,600	41.08
Herefordshire	8,687	61.57
Hertfordshire	10,760	36.35
Huntingdonshire	5,850	36.50
Kent	29,875	34.79
Lancashire	7,200	169.63
Leicestershire	11,600	44.31
Lincolnshire	31,500	56.36
Middlesex	56,380	3.19
Norfolk	46,200	29.31
Northamptonshire	21,516	29.29
Nottinghamshire	11,760	43.89
Oxfordshire	7,950	59.33
Rutlandshire	3,730	25.68
Shropshire	13,375	61.76
Somersetshire	30,263	34.60
Southamptonshire	13,173	81.24
Staffordshire	7,150	101.74
Suffolk	25,750	36.80
Surrey	15,600	30.69
Sussex	18,720	40.04

Counties.	Assessment.	Acres to £.
	£	
WARWICKSHIRE	9,800	57·54
WESTMORLAND	1,890	256.84
WILTSHIRE	18,240	47·43
WORCESTERSHIRE	10,640	42.47
WALES	33,753	140.27
YORKSHIRE	26,150	146.86
TOTAL	665,362	56.25

ORDER OF THE COUNTIES.

MIDDLESEX.
RUTLANDSHIRE.
ESSEX.
NORTHAMPTONSHIRE.
NORFOLK.
SURREY.
BUCKINGHAMSHIRE.
SOMERSETSHIRE.
KENT.
HERTFORDSHIRE.
HUNTINGDONSHIRE.
SUFFOLK.
SUSSEX.
GLOUCESTERSHIRE.
WORCESTERSHIRE.
BEDFORDSHIRE.
NOTTINGHAMSHIRE.
LEICESTERSHIRE.
DORSETSHIRE.
BERKSHIRE.
WILTSHIRE.
DEVONSHIRE.
LINCOLNSHIRE.
CAMBRIDGESHIRE.
WARWICKSHIRE.
OXFORDSHIRE.
HEREFORDSHIRE.
SHROPSHIRE.
SOUTHAMPTONSHIRE.
DERBYSHIRE.
CORNWALL.
STAFFORDSHIRE.
CHESHIRE.
DURHAM AND NORTHUMBERLAND.
WALES.
YORKSHIRE.
LANCASHIRE.
CUMBERLAND.
WESTMORLAND.

TABLE XII.

ASSESSMENT OF £6000 A MONTH ON SCOTLAND, COUNTIES AND BURGHS, FOR THREE YEARS. JUNE 24, 1657.

Counties and Burghs.	Assessment.		
	£	s.	d.
ABERDEEN COUNTY	339	16	7
Do. TOWN	66	12	0
ARGYLE	162	5	10¾
AYRSHIRE	322	10	5
Do. TOWN	13	19	9¾
IRVING	9	19	8
BANFF	95	17	0
Do. TOWN	3	0	0
COLLEN	1	10	0
BERWICK	234	8	5
LAUDER	3	9	7¼
BUTE	25	14	0½
ROTHSAY BURGH	3	0	0
CAITHNESS	49	18	9
CLACKMANNAN	29	7	3¼
CROMARTY	5	13	9
DUMBARTON	63	14	2
Do. BURGH	6	0	0
DUMFRIES	226	1	5
Do. BURGH	16	13	0
SANQUHAR	1	0	0
LOCHMABEN	1	0	0
ANNAN	1	0	0
EDINBURGH COUNTY	265	6	6
Do. CITY	334	12	0
ELGIN	88	5	5
Do. BURGH	6	13	2
FORRES	3	0	0
FIFE COUNTY	419	17	10
KINROSS	11	3	2
ST. ANDREWS BURGH	33	6	0
DYSART	13	19	10
KIRKALDY	24	8	5
CUPAR	10	19	7½

Counties and Burghs.	Assessment.		
	£	s.	d.
PITTENWEEM	6	13	2½
DUNFERMLINE	8	15	3
CREEL	10	19	0
KINGHORN	4	10	0
ANSTRUTHER, WESTER	3	9	0
INVERKEITHING	4	19	9
KILREIN	1	10	0
BURNTISLAND	10	19	9
FORFAR	272	16	3
Do. BURGH	2	1	1
DUNDEE	69	18	6¼
ARBROATH	4	10	0
MONTROSE	19	19	7½
BRECHIN	6	14	6
HADDINGTON COUNTY	231	17	2
Do. BURGH	18	0	3¼
DUNBAR	10	19	7¼
NORTH BERWICK	2	6	10
INVERNESS	215	18	3
TAIN	4	19	7½
DINGWALL	0	19	2½
KINCARDINE	82	0	1
LANARK	263	17	10
Do. BURGH	6	0	0
GLASGOW CITY	64	18	9
RUGLIN	2	0	0
LINLITHGOW COUNTY	105	16	6
Do. BURGH	17	16	10
QUEENSFERRY	4	1	0
NAIRN	23	0	3
Do. BURGH	2	1	2
ORKNEY AND ZETLAND	90	14	2
PEEBLES	86	17	6
Do. BURGH	4	19	10½

Counties and Burghs.	Assessment, £	s.	d.	Counties and Burghs.	Assessment. £	s.	d.
PERTH COUNTY	419	17	10	SELKIRK	75	7	5
DO. BURGH	39	19	3	DO. BURGH	6	13	2
CULROSS	4	10	0	SUTHERLAND	28	0	0
RENFREW	112	15	7	DORNOCK	1	9	0
DO. BURGH	3	18	11	WIGTOWN AND KIRKCUDBRIGHT	223	5	6
ROXBURGH	387	4	9½	KIRKCUDBRIGHT BUR.	8	0	4
JEDBURGH	8	18	5	WHITEHORN	2	0	0
STIRLING	146	3	8½	NEW GALLOWAY	0	10	0
DO. BURGH	10	19	9				

TABLE XIII.

IRISH ASSESSMENT, £9000 A MONTH, TO BE PAID EVERY THREE MONTHS, FOR THREE YEARS. JUNE 24, 1657.

Counties and Burghs.	Assessment. £	s.	d.	Counties.	Assessment. £	s.	d.
DUBLIN COUNTY	1080	0	0	KERRY	180	0	0
DO. CITY	720	0	0	TIPPERARY AND HOLYCROSS	1610	0	0
KILDARE	590	0	0	DONEGAL	1143	0	0
CARLOW	200	0	0	TYRONE	550	0	0
KING'S COUNTY	240	0	0	FERMANAGH	300	0	0
QUEEN'S COUNTY	360	0	0	CAVAN	173	0	0
LONGFORD	105	0	0	MONAGHAN	155	2	0
EASTMEATH	1903	18	0	ANTRIM AND CARRICKFERGUS	1763	0	0
WESTMEATH	573	0	0	DOWN	1466	0	0
KILKENNY	1482	10	0	LONDONDERRY AND COLERAINE	1012	0	0
WEXFORD	600	0	0	GALWAY	2060	0	0
WICKLOW	120	0	0	ROSCOMMON	533	0	0
LOUTH AND TRIDAGH	590	12	0	SLIGO	360	0	0
LIMERICK AND CITY	956	16	0	MAYO	477	0	0
CORK	3360	18	0	LEITRIM	130	0	0
WATERFORD	1120	0	0				
CLARE	745	6	0				

CHAPTER IV.

CURRENCY.

ACCORDING to Ruding, in his History of the Mint (he gives his authorities for the statement), Elizabeth coined in silver £4,718,579 2*s.* 8½*d.*, besides £118,222 9*s.* 4½*d.* in base money for Ireland. She also coined in fine gold £440,552 8*s.* 9½*d.*, and in crown gold £354,585 19*s.* 7*d.* She reigned forty-four years and a little over four months. She therefore, omitting fractions, coined on an average £107,240 in silver and £18,071 in gold annually, for English use.

James reigned twenty-two years and three days. He is said by the same authority to have coined of silver £1,641,004 13*s.* 3*d.*, besides £116,273 11*s.* in Irish currency, and of gold £32,093 17*s.* 9*d.* in 'angel' gold, £3,634,296 1*s.* 2*d.* in crown gold. The average annual coinage of silver in this reign was therefore £74,582; that of gold was £166,654, the figures being treated in the same way.

Charles reigned twenty-three years and a little over ten months. Omitting fractions, and taking this reign at twenty-four years, he is said to have coined in silver £8,776,544 10*s.* 3*d.*, and in gold £12,658 5*s.* in fine gold, and £3,307,019 in crown gold. This gives a yearly average in silver of £365,689, and in gold of £138,320. If in this sum is included the coinages struck during the war, one can understand the large increase in the silver currency. If this coinage is not included, the reason must be sought elsewhere.

The Commonwealth lasted eleven years and four months.

During this time £1,000,000 in silver was coined, and £154,511 14*s.* 9¾*d.* in gold, according to the same authority. Taking this period at eleven years, the coinage of silver was £90,909, that of gold £14,047, annually.

The real reign of Charles the Second lasted a little over twenty-four years and eight months. Taking it at twenty-five years, we are told that there was coined £3,722,180 2*s.* 8¼*d.* in silver, and £4,177,253 19*s.* 5*d.* in gold; or £148,887 in silver, and £167,090 in gold, annually.

The reign of James the Second may be said to have lasted four years. During this time the coinage was £518,316 2*s.* 5¼*d.* for silver, and £2,113,638 18*s.* 8½*d.* in gold. Besides this he coined £1,596,799 in base money for Ireland. This gives an annual average of £129,579 in silver, and of £528,407 in gold.

The reign of William may be taken at a few days over thirteen years. In this period £7,093,074 5*s.* 4½*d.* were coined in silver, and £3,418,889 11*s.* 7*d.* in gold. The annual average of the former was therefore £545,621, of the latter £262,991.

In two of these reigns, that of Elizabeth and William, there was a recoinage on a large scale. In Elizabeth's time the amount reissued from the Mint was (vol. iv. p. 737) £733,248; in William's, it was about seven millions, and therefore most of the Mint issues of this reign, the process having been completed in 1699, were of the recoinage. Besides this, during the Civil War both parties kept their respective mints very actively at work, though it is certain that Parliament coined more money in the King's name than Charles was able to do for himself. It is singular that the Commonwealth coined so little, less indeed than Elizabeth did.

Nor is (I am assuming throughout that Ruding's figures are authentic) the comparatively scanty coinage of the restored monarchy less remarkable. If we make a large speculative deduction from the average coinage of Charles the First, on account of the Civil War and the extensive melting down of plate, the increasing yearly issue of coin from the Mint is plainly checked between 1649 and 1685.

For during these thirty-five years the average issue of new silver is £134,919, and of gold £123,765, or £258,684 together, very little in excess of the yearly issue in the time of James I.

In Justice's book on the foreign exchanges[1] we are informed that, even after the recoinage of 1696–9, moneys of the English sovereigns of centuries past were in circulation, and even some of the base moneys of Henry VIII and Edward VI. It is probable that the amount of these old coins was not large, but they must have been numerous enough to warrant the author of the work referred to, published nine years after the recoinage was completed, in describing and valuing them. Besides coins of English origin, there was a considerable number of foreign moneys at all times in circulation; and if the rumours of the age are at all founded on fact, not a little French gold found its way into England from the French king's treasury. There are not however, and there cannot be, any means of knowing what proportion these foreign currencies bore to English mintages.

There is of course only one way in which a country possessing but little mineral wealth of its own, particularly one in which the search for such minerals was greatly discouraged by the claims of the Crown to all gold and silver mines, can procure supplies of these metals. This is by the foreign exchanges; and by what is called by economists 'the balance of the bargains' being on the side of the trading country. Now it is quite certain that the foreign trade of England was very insignificant in Elizabeth's reign. For centuries England had received this balance from Flanders by the sale of wool, and for centuries a large part of this balance had been disbursed in the cost of foreign wars and the exactions of the Papal Court. But almost simultaneously with the cessation of the papal tribute came the ruin of the Netherlands in the wars of religion, the emigration on a large scale of Flemish artisans to England, and the improvement in the home manufacture of woollen fabrics.

[1] A General Treatise of Money and Exchanges; London, 1707.

Now it is plain that England did scarcely anything in the way of foreign trade during the latter part of Elizabeth's reign. The voyages of the Queen's captains were not mercantile ventures, but buccaneering expeditions, and the exploits of Drake and Hawkins, on account of which they are deemed the earliest naval heroes of England, were no better and no worse than the acts for which Kidd and his comrades, little more than a century later, were hanged at Execution Dock. The Russian trade, never much, was stifled in the revolution which occurred in that country at the latter end of the century, and the Levant trade, which Elizabeth strove to foster, was a failure. That there was a trade between England and the United Provinces, now fairly safe of their independence, is true, but the English merchants were so jealous of Dutch commerce, that the assistance Elizabeth gave was almost neutralised by the piratical acts of English captains. That some of Philip's ducats, lavished so prodigally in this war, reached the English Mint, is likely enough. But they chiefly flowed to Genoa and Amsterdam, the bankers of the former city discounting Philip's bills, and the traders of the latter trafficking with Philip's subjects.

That the trade of England made a considerable start in the reign of James is certain. If nothing else would prove it, the publication of the new Book of Rates would be conclusive. Thus the Levant Company in 1605 took a new departure, and made great gains[1]. The East India began that career of successful trade which enabled it to make enormous profits during the latter part of the seventeenth century. London was increasing so rapidly that the Court became alarmed at its growth, and the machinery by which the distribution of the precious metals could be effected was developed. The ineffectual attempt of James towards the end of his reign to prevent the exportation of English silver is a proof that trade was growing.

Soon after the Restoration, when the success of these trading

[1] Macpherson, quoting a contemporary writer, says the gain was three to one.

companies had become established, a practice sprung up, which was destined to have a great and lasting effect on currency and trade. The circulation of credit is as old as civilisation. The bankers of antiquity were familiar with bills of exchange, and with the transfer of sums from the account of one customer to that of another. The tribute which, according to the narratives of contemporary monks, was levied on England by the Roman curia during the days of the Papal supremacy, was transmitted by bills of exchange, taken as equivalents of the consignments of English wool which were made to the Low Countries. And there were always middle men, who were ready for a consideration to traffic in these commercial instruments.

London was as we have seen so much the centre of British commerce, that no other town in the kingdom approached it in opulence. But it was by no means a safe place to live in. Not only were its suburbs infested by highwaymen, but footpads and burglars haunted the principal streets of the city. Large too as London was, the inhabitants of the city knew each other well, and perhaps no information was better spread than that of who had the fullest strong box, not among his acquaintance only, but among those whose acquaintance he least of all desired to make. The law to be sure was very severe, and criminals were hanged by the dozen for offences against property. But with amusing inconsistency, the law permitted sanctuaries for thieves and murderers in immediate proximity to the wealth which it professed to protect. The sanctuaries of Whitefriars, the Mint, and the Savoy were the nurseries and asylums of professional thieves; the first in the city itself, the second in Southwark near the Bishop of Winchester's palace, the third in the great thoroughfare of the Strand.

It was expedient then to find a safe place in which to deposit cash and plate, and the most obvious keeper of valuables was the man whose stock in trade required extraordinary precautions against organised rapine. Hence

the goldsmiths became the recipients of customers' balances, and joined the function of bankers to that of dealers in plate. For deposits left with them they gave receipts, which were naturally transferred from hand to hand, and became a paper credit based on the security of cash. As these goldsmiths' notes circulated, the banker who issued them, and got experience of how they were employed in currency, learnt that his liability to the depositor was only to pay him the equivalent of his deposit, and not cash so to say earmarked for him. Then he gradually came to see that the amount of cash which he must keep in hand to meet current demands was only a fraction of his liabilities, and that he could employ his customers' balances for his own advantage, as long as his notes would continue in circulation.

The profits made by the bankers were very large, if we can trust the statements made about the rates at which they discounted foreign and home bills. But the rate of exchange was liable to very severe fluctuations, and the goldsmith who had discounted foreign bills might very well find that the profit which he expected on a discount might be suddenly extinguished, or even turned into a loss by the fluctuations of the market. Besides, they distrusted even their own strong boxes, and sought a safer place of deposit. In 1672 the goldsmiths had deposited over £1,300,000 in the Exchequer. Charles, who had just got an enormous grant from Parliament, as grants at that time were reckoned, seized on the goldsmiths' money, or rather that of their customers, and appropriated it. He promised to repay it with interest, but though he paid interest for a short time, he dropped the interest soon, and never troubled himself about the principal. The goldsmiths' debt, as it was called, was acknowledged in 1701, to the extent of a moiety, and is in origin the oldest part of our public debt.

Now the seventeenth century was emphatically the age of joint-stock enterprise, and what one man or a private partnership could do, an association of traders could do equally

well, and perhaps more safely and profitably to themselves, as well as more advantageously to the public. There were not wanting examples, and most successful examples, of such undertakings. The Bank of Venice had been in existence for five centuries by the year in which Charles stole the goldsmiths' money. The Bank of Genoa had been a flourishing corporation for nearly three centuries. Banks were found in many of the free German cities. But the most famous and envied of these institutions was the Bank of Amsterdam.

The Bank of Amsterdam was founded in the year 1609, in a year when the independence of Holland had been virtually secured, though the first truce with Spain was not finally settled till the following year. Now by this time the commercial prosperity of Holland was at its zenith, and Amsterdam was to the seventeenth century what London has been to the nineteenth. But this trade was carried on in the currencies of all nations, and the Dutch saw, as the Venetians and Genoese had seen before them, how convenient it would be if they could establish an institution which should receive, sort, and assay these currencies, giving warrants transferrible from hand to hand to those who might deposit moneys with them. They would give the merchant an instrument of credit absolutely secured, and so useful that it would bear a premium from the beginning. But in theory, and for a long time in fact, their cash and their paper exactly squared. Their profit seems to have been made from the floating balances of their customers, from the obligation which they put on all merchants of negotiating foreign bills with them when the amount was above a certain sum, from a commission on transfers of accounts, and from the agio on their notes. So enormous were their deposits, that at the end of the seventeenth century their cash balance was said to have been as much as thirty-six millions sterling.

The possession of such a prodigious treasure, and the reputation for unblemished credit strikingly illustrated in 1672, when Louis and Charles conspired together to make sudden

war on Holland, were of great advantage to Dutch commerce. The exchanges were almost always in their favour, while (as far as the record is preserved to us) they were nearly always more or less adverse to London, and sometimes seriously so. In brief, Dutch commercial credit and Dutch paper money were in equally high repute, and the Amsterdam exchange dominated the trade of Europe.

It was natural that the success of the Amsterdam bank, even before the events of 1672, when its solvency was so strongly demonstrated, should excite the envy of English traders and suggest the imitation of the institution in London. There were at least two proposals to establish a bank of deposit in London made during the Commonwealth. But the difficulty was to find the machinery of management. The government of Cromwell was always precarious, that of Charles profligate, dishonest, rapacious and perfidious. It is not too much to say that there was no political virtue in English public men after the Restoration, very little for a long time after the Revolution. There was nothing in London like the city authorities of Amsterdam, nothing with powers like theirs, nothing with a corporate character like theirs. Besides, had the Corporation of London been ever so vigorous and high-principled, they were (as the raid on the Charters showed) at the mercy of the vile lawyers whom the Court debauched, and kept on foot as the standing enemies of all justice and honour. That a bank should be founded by the Corporation of London, and controlled by it, was out of the question. It was not without reason that men argued that a public bank and monarchy were incompatible. It was not much to the honour of monarchy that such an incompatibility could be detected, for the statement implied that public credit and monarchical institutions could not live together. They could not coexist till the Stewarts had been expelled and a new departure had been taken.

It has often been said that the Bank of England, founded

in an imperfect form in 1694, and remodelled under a stronger and more satisfactory constitution in 1697, was the creature of the public debt. Some have alleged that its origin was always tainted by the system to which it owed its existence. But the criticism is shallow, and as usual, treats a coincidence as a cause. The principal dangers of the Bank's early existence arose from its securities being too often public debts, and the fact that the Government of the day, while it affected to be its protector, fastened on it like a leech, and bled it almost to death.

The experience which the founders of the Bank of England had of the usefulness of goldsmiths' notes enabled them to take a new departure in joint-stock or corporate banking. From the beginning, this great institution in England, which has had not only an illustrious financial career, but has really done more to strengthen and develop the British constitution than parliaments and governments have, was a bank of issue, which conceived itself justified in circulating its notes on its credit, that credit consisting in the judgement with which it limited its issues by the interpretation of its probable liabilities, with a large margin kept, as experience taught the direction, over the probability. I have in another work told its early history, that is, of the nine years during which it is a factor in the period which lies before me, and I am glad, in the vast mass of facts which I have collected and must comment on, that I can save space by referring to my work on the first nine years of the Bank of England[1].

I must however say something here about the recoinage of 1696, an act of government which was not so fruitful of results as Elizabeth's recoinage was, because it had no effect, as her action had, on prices. But Elizabeth's resources were not considerable enough, even if her counsellors had had the wisdom to advise her, to make good the frauds which her father and the guardians of her brother, bred in the demoralising atmosphere of Henry's court, had committed on

[1] The First Nine Years of the Bank of England; Oxford, Clarendon Press.

the English nation. To have really restored the currency in 1560 would have been to sacrifice twelve or fifteen years of the public revenue to honesty, a problem as difficult of solution in 1560, as it had been in 1433 to make the income of Henry the Sixth (then eleven years old) square with his expenditure. The recoinage of 1696 was costly enough, for its charge was about a year and a-half's revenue in time of peace.

Nothing is more curious than the suddenness with which a discovery of the mischief was made, and the puzzled way in which people tried to account for it. Godfrey, one of the founders of the Bank of England, set it down to the goldsmiths, and this before the goldsmiths had quarrelled with the Bank. Most people alleged it to be due to the temptation which hammered money gave to the clippers. Some said it was done by the Jews, and that Oliver, among his many political crimes, had allowed the Jews to settle in England and practise this nefarious act. One thing alone was clear, that day by day coins grew worse and worse, and that on the whole at least a third of the silver was gone from the current coin. It does not appear that the gold coin was clipped.

The legislature knew that human hands had done the work, that the currency was not brought into its then present condition by fair wear, and that much of the wrong-doing was recent. By straining the Statute of Treasons they had brought clipping under the elastic law of Edward III, and convicted offenders by the dozen, hanging the men and burning the women. There is reason to believe that the offence of clipping was trumped up against persons who made themselves inconvenient on other grounds. The legislature was right in its facts, but was negligent or ignorant in the interpretation of the causes of the facts.

There is no doubt a fashion in crime, perhaps an occasional fascination, especially when the law tries to check special offences with ferocious severity. At the end of the seven-

teenth century clipping[1] and highway robbery were the commonest offences against property, as perjury had been a few years before. Later on, forgery became a fashionable crime, and men preferred it to safer kinds of fraud, though the law was remorseless to the detected culprit. Much of the coin was no doubt worn with age, for in Justice's work on Money and the Exchanges he gives the names, and with them the betterness or worseness of forty-one gold coins and 109 silver coins still circulating, or at least accepted at the banks and exchanges of his time (1707), some of them, as I have said, being actually the base moneys of Henry VIII and Edward VI. Now an ancient and worn currency, especially if it be of finer metal than that of later issues, naturally tempts the clipper, and when the coin had been clipped or filed, each successive recipient might think it no great harm if he abstracted a few grains. Besides, the irregular, hammered coin which was in circulation, especially when the piece was thin and the ring well within the edge, might suggest the fraud, and even seem to give an excuse for it.

I have described the circumstances which attended the recoinage in a work to which I have already referred. But I cannot omit to note how important was the resolution which the legislature came to, at the instance of Montague and Sommers, and under the advice of Locke, to restore the currency in its full weight as well as fineness to the standard of Elizabeth. It was an arduous and difficult task, and it may be doubted whether Parliament or the public would not have shrunk from the sacrifice had they known what the charge would have been. When the recoinage was completed in 1699 the money issued by the Mint was about seven millions sterling, and the loss to the community was £2,703,164 5*s.* 10½*d.*

[1] Clipping the coin had been made high treason by Cromwell's Treason Act of 1654.

CHAPTER V.

TRADE AND MARKETS.

At the time with which these volumes begin, English trade was very limited. It had hardly penetrated the Mediterranean, and was chiefly confined, as it had been in the days of Elizabeth's father, to the western coast of Europe as far as Seville, and to the Low Counties and the Baltic. The trade which had been established with Russia was almost extinguished after the death of Ivan the Terrible (1584) and during the disturbed reign of his successor Feodor. An attempt was made to establish commercial relations with Turkey, and a Turkey Company was constituted by charter, but the document gives no great expectations of profit from the undertaking, as the company is expected to guarantee the queen's customs by its exports and imports, under the monopoly which is given it, only to the extent of £500 a year.

The principal trade of England was with Antwerp, wasted in 'the Spanish fury' under Alva, and finally ruined by the capture of the city in 1585 by Parma. After it was taken, its trade, its wealth, and as many of its merchants as could escape with their effects migrated to Amsterdam, which gradually became during the period before me the acknowledged centre of European commerce. But not a few of the fugitive Flemings passed over to England, and established manufactures which had hitherto been unknown in the country, though even before this time a considerable trade in woollen goods had been developed.

There can be no doubt that Drake's voyages had their effect in a generation or two afterwards on English enterprise, because they showed what could be effected. But Drake was a mere buccaneer, and the immediate effect of his expeditions was to make the trade with India more remote and difficult. The true pioneers of the trade of England with India were the Dutch, who insisted, for excellent reasons, in carrying on trade with the subjects of a sovereign from whom they had revolted. Indeed the only attempts really made to establish distant English interests were those of Raleigh and his associates in the colonisation of the American plantations. The Dutch doubled the Cape in 1595.

The actual outbreak of hostilities between England and Spain, and the success which the Dutch and English had in their conflicts with Spanish vessels, undoubtedly assisted in the development of English naval enterprise. It is said by Macpherson that the first ships which sailed from England to Hindostan made the voyage in 1591, though even here the object was rather privateering than commerce, Spain having acquired the Eastern possessions of the Portuguese kingdom. Two years after the Queen gave a charter to a Levant Company. But for some time the Company was unprosperous. In 1597 the ancient settlement of the Hanseatic League in London was suppressed.

On the last day of the sixteenth century, December 31, 1600, Elizabeth granted her charter to George Clifford, Earl of Cumberland, a great privateer of her time, and to many others, creating them a corporation, under the style of 'The Governor and Company of Merchants of London trading to the East Indies.' The charter gives a monopoly of trade to those who had obtained it. This is the Company which claimed and exercised, though under much opposition, the sole right of trading to India, till in 1698 Montague established a new Company by Act of Parliament, under the name of the English East India Company, which for ten years was the rival of the old Company, and finally in 1708 was united with it.

The first voyage of the new Company to India was made in 1601, with five ships, the whole being of 1530 tons' burden. The vessels returned safely to England, after the queen's death, their voyage having occupied two years and nine months. In its early days the East India Company provoked the jealousy of the Turkey Company. It appears that Turkey or some of its subjects had succeeded to some extent in restoring that trade, which was destroyed by the conquest of Egypt in the beginning of the century, and that the spice trade with Turkey was imperilled by the success of those voyagers, who doubling the Cape of Good Hope, could deal directly with the countries in which these articles were produced. In the last year of Elizabeth's reign, all the Dutch East India traders were also amalgamated into that one Company, which had so distinguished and imposing a career, but in the end succeeded in reducing the great Bank of Amsterdam to bankruptcy. The capital of the Dutch Company was about £600,000 sterling; that of the English was only £72,000, less than an eighth of the Dutch venture. But the Hollanders chiefly sought to trade with the islands, and establish factories in them.

It was most unfortunate that, from the beginning, there sprung up a bitter feeling between the English and the Dutch traders in the Eastern seas. There was room enough for both, but very soon the two nations began to quarrel. It was very hard, and remained very hard for a whole century, for the English to break themselves of those buccaneering habits which constituted, as I have said, much of the daring courage and activity of Drake. Besides, both the English and the Dutch Companies went the wrong way to work with their officials in the East. They seemed to think that they could hire the services of agents in the tropics at the wages earned by clerks in London or Amsterdam. As a consequence, they were ill-served. The men who had lost character in Europe, or could not get employment here, were drafted off to these tropical factories, where they were put into offices of trust,

and into employments which needed discretion. The least mischief which they did was to trade on their own account, but they constantly embroiled their employers with Native powers, and with other Europeans. Such an affair was the famous Amboyna massacre (1622), which generations did not forget or forgive. The rapidity too with which the Dutch, with their vastly superior capital and enterprise, occupied the Spice islands, and the policy with which they secured and maintained a monopoly of the trade, disastrous as it proved in the end to themselves, was irritating and vexatious in the last degree to their rivals. The English Company was chartered for fifteen years only under Elizabeth's instrument, but in 1610 James made the Company perpetual, and two years afterwards they traded on a joint-stock principle. At this time, according to Misselden, the exports and imports of England were £4,628,586 in value, and the customs were £148,075, of which nearly three-fourths were collected in London.

In 1615, English merchants traded to most of the Mediterranean ports, to Portugal, Spain and France, to Hamburgh, and the Baltic. The Newcastle collieries were also frequented by vessels from Northern and Western Europe. Besides, the English were active in the Newfoundland cod fishery, and the Greenland whale fishery. During this first quarter of the seventeenth century, colonies or plantations were founded in America, and a treaty of commerce was renewed with Russia.

The settlements on the eastern coast of North America, ultimately to become the United States, were practically commenced in the first quarter of the seventeenth century, as was also the occupation of the islands in the Gulf of Mexico, the first of which, Barbadoes, was settled in 1614. Hither the colonists transported the sugar-cane, and began that industry which after a time became so important. The largest had been occupied by Spain, who laid claim, partly by the bull of Alexander VI, which Protestant countries, as Spain grew weaker, repudiated,

and partly by what has been at all times recognised as giving a title to the occupant, priority of discovery. At this epoch too, France was attempting to establish a colonial system, both in the islands and the mainland. The Crown too began to grant charters to the American settlers, occasionally giving proprietary rights to those who founded a colony at their own expense. In these colonies the king generally appointed a governor and a council, whose acts should be revised by the Privy Council in England. New England, or Massachusetts Bay, was incorporated in 1629; Maryland in 1632. Very soon, the cultivation of tobacco in Virginia and Maryland developed a commerce of considerable importance.

It is said by writers of the time that the Revolution of 1640, by which John of Braganza succeeded in again severing Portugal from Spain, had a beneficial effect on English commerce. In consequence of this movement, Spain lost the Portuguese possessions in India, and with them the power of supplying her American possessions with necessary articles. This trade we are told fell into the hands of the English and Dutch, and in some degree came to Hamburgh and the French. Shortly afterwards an advantageous treaty of commerce was negotiated between England and Portugal, by which the former secured the most-favoured-nation clause.

There can be no doubt that the Thirty Years' War was in some degree a gain to England. Spain had again quarrelled with Holland, and was finally and irretrievably ruined, to say nothing of the policy of Philip III in the expulsion from Spain of nearly all its industrial population. And though the Dutch West India Company paid vast dividends out of the prizes which they constantly made of the Spanish treasure fleets, the cost of war loaded the United Provinces with debt, a debt which amounted in the single province of Holland to 153 millions of guilders in 1650. France, through the greatness of its resources, and its power of recovery from loss, had gained at the expense of Germany, whose progress was thrown back for two centuries. England it is true had been engaged in

civil war, the cost of which was reckoned at near seven millions annually. But great as the sacrifices were of those who had to meet this charge, it was in no slight degree compensated by the rapid development of English commerce, which was extending itself in all directions.

That this commerce was aided by the famous Navigation Act of 1651 cannot I think be disputed, any more than one can doubt that the repeal of this Act (renewed after the Restoration) within the memory of many was wise and politic. It is said that most of the carrying trade between Europe and England was in the hands of the Dutch, that their freights were low, and that English seamen were largely employed by them. The Dutch democracy, always inclined to the house of Orange, and always sacrificed by them to the family interests of that house, had connived at the murder of Dorislaus, and had avowed its interest in the deposed family[1]. The political differences between the two commonwealths were aggravated by the rivalry of the two companies in the East, and by claims which the English made to supremacy in the narrow seas. Very likely the claims set out in Selden's *mare clausum* were unfounded, and that the *mare liberum* of Grotius represents more accurately the case of international right and the ultimate interpretation of international law. But in the interpretation of political action and its consequences, one must take into account political sentiment and prevalent opinion.

The Navigation Act of 1651, re-enacted in 1660, extorted the admiration of Adam Smith, and is treated by him as a distinct exception to his general doctrine of free trade. He does not doubt that the Act was 'not favourable to foreign commerce, or to the growth of the opulence which can arise from it,' and for obvious reasons. But he adds that 'as defence is of much more importance than opulence, the Act of Navigation is, perhaps, the wisest of all the commercial regulations of

[1] The Stewarts had no warmer partisans than the Dutch were. Charles repaid them after his return with characteristic ingratitude and perfidy.

England[1].' The notion under which the Act was subsequently defended, that it was a stimulant to English shipping and English commerce, did not enter into Smith's mind.

The Act provided that no merchandise of Asia, Africa or America, including the English plantations, should be imported into England in any but English-built ships, belonging to English or English plantation subjects, navigated by English commanders, and manned by crews of which at least three-fourths were Englishmen. The Act did not hinder European vessels from frequenting English ports with the produce of their own country, and exporting English goods in exchange. It was aimed at the carrying trade of the Dutch, and at that only, and it dealt severely with infringements of the Act. To the remonstrances of the Dutch the Parliament answered with claims, in which were included grievances old and new. It should be added that this famous Act was by no means acceptable in England, as it raised freights considerably, and even diminished supplies. In their animosity to the Dutch, the Parliament even contemplated schemes which it was hoped might damage or ruin the Dutch woollen manufactures.

War broke out between England and Holland. It was a merely naval war, and lasted for two years only. But it was in the highest degree disastrous to Holland, and was the beginning of its decline. The English for a time became the greatest naval power in Europe, and though during the disgraceful days of Charles they lost their reputation on sea, they recovered it at the battle of La Hogue, and have retained it ever since. Peace was concluded with Holland in April 1654, and the differences between the Dutch and English East India Companies were settled—at least on paper.

The war with Holland over, Cromwell, now the actual ruler of the three kingdoms, determined on attacking Spain. His motive, beyond doubt, was that which influenced public men

[1] Wealth of Nations, book iv. chap. 2. See for the suggestion of such an Act, as means of crippling the English mercantile marine in the fifteenth century, vol. iv. p. 644.

for more than a century after his time, that of establishing dependencies by settlement or conquest, to which the principles of what Smith calls the mercantile theory could be applied. His object was to get possession of some island or islands in the Antilles, Cuba or S. Domingo by preference, from which he could attack Spanish America, and secure the interests of British commerce in those regions. The result of the expedition, to Cromwell's disappointment, was the capture of Jamaica. In 1658 Cromwell got possession of Dunkirk, a conquest which gave great satisfaction in England.

The principles of commerce were now discussed. The publications of Mun, Malynes, Misselden, Roberts, Child, North, and Davenant illustrate the trade of the time, and the necessary modification of these principles of political or economical action which had previously been thought to be unassailable. It is true that people in high places still believed that the great object of commerce was to secure a supply of the precious metals, that to sell more than one bought was to make a profit, that the excess of exports over imports was evidence of progress, and the reverse the proof of commercial decline, and that the highest policy of a government was to secure a monopoly for English manufacturers and traders. The growth of trade was generally ascribed to the reduction of the rate of interest by law, the cause being confounded with the effect.

Towards the latter end of the Protectorate, Cromwell, who had declared the trade to the East Indies open, reconstituted the Company with a capital ten times as great as that which it had at its first foundation. During the interval of free trade with India, occurred the incident of Skinner's losses, his plea against the Company, his application to the Lords, and the quarrel over the jurisdiction of the Lords, between that House and the Commons. The topic was one of great constitutional importance, and led, as those who are versed in constitutional antiquities know, to the settlement of certain important constitutional principles. But the commercial question which was involved in this celebrated case had its final solution

in the establishment by Act of Parliament of January, 1699, of the English East India Company, for a few years the successful rival of the old Company, with which at last it was amalgamated. The old Company received a fresh and exclusive charter in 1661 from the Crown.

In 1668, Charles granted that part of the dower of Catherine of Braganza in India which consisted of Bombay and Salsette to the East India Company, and thus secured the Company another inlet into Hindostan. At nearly the same time, the trade in logwood, cut in the Bay of Campeachy, became a matter of considerable importance. In 1664 the English captured New Amsterdam (now New York) from the Dutch, and thus the line of the American plantations on the eastern sea-board from New England to Carolina became an English dependency, and was brought under the colonial system, some of the plantations being chartered, some proprietary. The Dutch war of 1664, disastrous to both nations, but most to Holland, was ended by a peace in 1667; and in 1668 the famous Triple Alliance was formed, though it was broken by the unprovoked war of 1672.

Perhaps one of the best proofs of how steadily wealth was increasing with the commerce of England was the rapid rebuilding of London after the great fire, the loss of which was computed at £12,000,000 sterling. But, in fact, the remains of the old Puritan party lived and throve in the towns. They were the men who found the money for the Parliamentary War, they were the men who saved the money from which not only the city was rebuilt, but the Revolution was established. The noble traitors of 1688, who had flattered James and deserted him, would have recalled him. The merchants and traders sustained William, bore with Anne, thwarted the conspirators of 1714, and established the Hanoverian succession. The chief Tories among the moneyed men were the scriveners and goldsmiths, the jobbers in the old chartered stocks and the farmers of taxes, the managers of the old East India and the African Companies.

As I have said, the best description of the Cromwellian army is in Bunyan's Holy War, and of a dishonest tradesman in the same author's Life and Death of Mr. Badman. So in Vanity Fair, the same author probably gave a heightened description of what he saw at Stourbridge: the three weeks' mart, which was not indeed in the seventeenth century what it had been for the three previous centuries, but was still one of the most considerable trade gatherings in England.

Sir Josiah Child's discourses on trade, published in 1670, assert that English trade and English wealth had greatly increased during the last twenty years. This was due undoubtedly, in the first place, to the position which Cromwell's administration secured for England among the European powers; and in the second, to the men who had still retained the temper and energy of the old cause. It was noted, Macaulay tells us, that if a man was active and prosperous in business, after the Restoration, he would generally be found on enquiry to be one of the men who sympathised with the cause which won its final victories at Marston Moor and Naseby, at Dunbar and Worcester. Child comments, as proof of the progress made, on the great rise of London rents, doubled, he tells us, after the fire, though just before that disaster they had been 25 per cent. higher than they were in 1650. Shipping he tells us had doubled in the time, the number of merchants and traders had greatly increased, and ready-money business was far more common than it was previously. Child was a director of the East India Company, and greatly increased his fortunes in that undertaking. Later on he was not free from suspicion of complicity in that corruption by which the Company strove to ward off threatened attacks on them in Parliament, but he can be trusted when he speaks of the manner in which the English were enabled to baffle in some degree that monopoly of the spice trade which it was the policy of the Dutch to acquire and keep. The dividends on the East India stock during the greater part of the reign of Charles were very large, for the price often stood we are told at 300, or even at 500.

The economists of the time were however tortured with what they thought was disclosed to them by the figures of the exports and imports, and the excess in value of the latter. They were under the impression that the difference was loss, and did not anticipate that it might mean gain, that the exports were paying for the imports, and that there was no evidence that the balance of bargain was against the country. The picture which Child gives, no doubt correctly, of the growing wealth of the country, might have supplied a corrective to these alarms, and have reassured the students of political arithmetic, as these thinkers were called at the time, that constantly increasing trade and constantly accumulating capital were inconsistent with the theory that we were paying away too much and were getting too little.

In 1670 the King granted a charter to the Hudson's Bay Company, a trading association which had a long career. The King undoubtedly intended to grant his cousin Rupert, with his associates, great rights over that part of America which was as yet unoccupied; but the Act of 1 Will. & Mary, by which the concession of such rights is declared to be in Parliament only, precluded the Company from obtaining the absolute ownership of the district. Practically however the Company obtained a monopoly of the American fur trade. In 1672 Charles shut up the Exchequer, and appropriated the goldsmiths' money, i.e. the money of their customers who used them as a bank. According to Child, the practice of the goldsmiths in taking money at six per cent. and lending it to the Crown at eight was injurious to trade, and disadvantageous to the tax-payer; to the former because it discouraged the use of capital in commerce, to the latter because it kept up the rate of discount on unpaid revenue to a higher amount than was natural.

The war with the Dutch in 1672, unprovoked and in the highest degree discreditable, gave an irresistible influence to the party of the Prince of Orange, and inflicted enormous losses on Holland and England. Indeed nothing contributed

more to raising the power of France than this scandalous war, the issue of which was the great position obtained by France at the treaty of Nimeguen in 1679. The advantages obtained by France in this war were the real causes of the wars of 1689 and 1702, and indeed of much of the warfare of the eighteenth century, for the doctrine of the balance of power was not easily separable from that eagerness after trade monopolies which was the strongest motive for political and military action at the time.

In the year 1676, Child, answering an attack made on the stability of the East India Company, which had latterly obtained another charter from the king, states that the exports of the Company amounted to £430,000, and that the imports were sold at double this amount; and that their licences to private traders give further exports of about £150,000, and imports to the value of £300,000. He concludes that the annual addition to the capital of the country by this trade is not less than half a million. It is certain that during this time England had a very lucrative trade with India, though if what we are told is true, not a little of the Company's profits was spent in bribing members of Parliament[1]. At this time the price of the stock was 300.

The revocation of the Edict of Nantes led to a great emigration of French Huguenots—who were, like the Nonconformists of the English towns, the most prosperous merchants and manufacturers, and the most skilful artisans in France—into Holland, Switzerland, Prussia, and England. These men materially benefited the commerce and manufactures of the countries in which they settled, and in the wars which followed were some of the most dangerous and implacable enemies which Louis had. The sympathy of the English with these exiles was great, and to the infinite disgust of James, large collections were made in parish churches for their relief. It is said that 50,000 settled in

[1] There was a standing quarrel during the whole of this century between the East India and the Turkey Companies.

Great Britain, and that they brought at least three millions of money with them. They were alleged to have greatly improved the silk, paper, and glass trades. And though the war with France which followed the Revolution was very injurious to the shipping of this country, the progress of domestic manufactures was great and rapid.

In 1695 occurred the unfortunate Darien expedition, mischievous not only as a failure which the Scotch ascribed to the jealousy of the English merchants, but because it alienated Spain at a critical period in English politics. It led in the end however to the political union of the two countries, and the admission of the Scots to all the privileges of English commerce.

From the Peace of Ryswick to the outbreak of the War of the Spanish Succession great progress was made in English commerce. The customs, the shipping, and the profits of trade rapidly increased, and the moneyed men became a considerable power.

The only other event of considerable commercial importance within this period is the foundation of the English East India Company in 1698. The creation of this new Company by Act of Parliament in the next year was partly due to financial necessities, the new Company having advanced two millions to Montague, with which some of the outstanding liabilities of the Exchequer were cleared off, partly because Parliament was determined to constitute itself the sole grantor of commercial monopolies, partly for political reasons, for the old Company was a Tory corporation, while the new one, the creation of Montague and the last of his great financial measures, was a stronghold of the Whigs.

CHAPTER VI.

TAXATION AND FINANCE.

THE revenue of the Crown for the first half of the period before us was derived, as it had been of old, from the hereditary estate of the sovereign, from feudal dues, from official fees, from customs on exports and imports, from fines and forfeitures, and from the post office. On this estate were maintained the household, the executive, and such personal guards as the king might keep in attendance on him during time of peace. Hence grants to court favourites were looked on with great suspicion, for to lessen the king's estate was to impoverish his ordinary resources, with the result in the end of his coming on the public at large for supplies. It is true indeed that for a long time rents did not rise with prices, and that consequently the Crown was greatly impoverished by natural causes after the issue of the base money and the restoration of the coinage.

Elizabeth was very poor. But she was exceedingly thrifty, and even stinted unwisely. During that part of her reign which extends from her accession to 1582–3 she seldom asked her subjects for extraordinary supplies. But the outbreak of hostilities with Spain and the Irish insurrection made it necessary that she should be more frequent in her claims on Parliament, and that she should seek new sources of revenue in grants of privilege to chartered companies of trade.

The parliamentary grants were from the clergy and the laity, and were spoken of as subsidies in the case of the clergy,

as subsidies, tenths and fifteenths in the case of the laity. The grants of the clergy were a rate on the annual value of their benefices, as computed by 26 Hen. VIII. cap. 3, i.e. 1534–5. Now the average price of wheat in 1531–40 was 7*s*. 8¼*d*., and between 1583–92 was 23*s*. 8¼*d*., more than treble the price in Henry's valuation, and a similar proportion would be found in other tithable produce; and therefore a grant by the clergy in 1585, if nominally at the same rate as in Henry's time, would be, the whole income of the clergyman being presumably derived from tithe, only one-third the amount of the older rate paid fifty years before. These clerical grants made in the Convocation of the clergy were gradually confirmed by Parliament, at first it seems only formally, subsequently as a matter of regular procedure, till at last, in the Long Parliament, an unconfirmed grant of the clergy to the Crown, such as was made after the Short Parliament was suddenly dissolved in 1640, was treated by the Commons as a grave offence against the constitution.

Now Davenant in his essay on Ways and Means[1] (1695) alleges that in the reigns of Henry VIII, Edward VI, and Philip and Mary, 'a new survey in a manner was made of all the land in the kingdom, and thereupon the subsidies that came after raised larger sums than formerly:' and he goes on to say that from 1 Elizabeth to 29 Elizabeth a subsidy amounted to £100,000 at least, alleging that this is shown by the accounts in the Exchequer. The ground on which he appears to draw this inference is the fact that Henry and his two successors were allowed by Parliament to nominate their own commissioners, or assessors, to bind them by oath, and to permit them to examine on oath all contributories to the tax as to the value of their real and personal estate. But it does not appear that any formal valuation (such as we have found was made frequently after the beginning of the Long Parliament) was made in Parliament; and we may conclude that if the actual amount of the subsidy was increased, it was due to

[1] Whitworth's edition of Davenant's Works, vol. i. p. 33.

nothing more than to greater strictness in discovering and assessing those who were liable.

The subsidy in Coke's time had come to be £70,000, of the tenths and fifteenths £20,000; these being raised by a (nominal) 4*s.* in the £ on the rent of land, and 2*s.* 8*d.* on the income of personal estates. In fact an ancient valuation was taken, and the subsidy, etc. distributed according to custom over the several counties, the commissioners appointed in Parliament being very numerous, and practically acting as a committee, charged with the duty of equitably assessing and collecting this fixed amount. The collectors were allowed a small percentage. The collectors were allowed to make a deduction of £6000 in the aggregate from decayed or impoverished places, or towns and villages where some great loss had occurred, as for instance a great fire, no infrequent calamity. This, it will be seen from my fourth volume, p. 162, was a practice which began as early as 1433. The border counties were exempt from contribution, at least till the Union of the Crowns, and were afterwards, even under new assessments, taxed very lightly. The reason is partly their poverty, partly the charges they were put to in defending the border. The Cinque Ports were also exempted, as they were specially charged with the defence of the narrow seas. The Universities of Oxford and Cambridge, with their colleges, and the two great foundations of Winchester and Eton, were exempted, and apparently those who were engaged in teaching the young elsewhere. A double tax was levied on the personalty of aliens.

In 1585 Elizabeth procures a subsidy of 6*s.* in the £ on the tenths in the king's books, from the clergy, the payment to be spread over three years; and one entire subsidy and two fifteenths and tenths from the laity, payable in two years. In 1587 the clergy grant another subsidy, the laity a subsidy and two fifteenths and tenths, the sailing of the Armada and its designs now being obvious and imminent. In 1588–9 two subsidies and four fifteenths and tenths are granted. In 1592

the clergy grant two subsidies, the laity three, with six fifteenths and tenths. In 1597 the clergy grant three subsidies, the laity three subsidies and six fifteenths and tenths, the plea being the disturbed condition of Ireland. In 1601, the rebellion in Ireland being now a fact, and a Spanish invasion of that island being threatened, the clergy grant four subsidies, and the laity also four, with eight fifteenths and tenths. On Coke's estimate the laity must have granted the Queen during the last eighteen years of her reign more than a million and a half in extraordinary supply, according to Davenant exactly two millions.

In 1603–4 the first Parliament of James grants him the 'subsidy of tonnage and poundage,' in the ancient customs. In 1605 the clergy grant four subsidies, alleging as their motive the settlement of the country, due to the king's accession. The laity grant three subsidies and six fifteenths and tenths, on the grounds of the Popish plot, the Irish embarrassments, the union of England and Scotland under one Crown, and 'the King's gracious disposition.' In 1609–10 the clergy grant one subsidy, the laity another, with one fifteenth and one tenth. In this grant the Northern exemption is not recited in the Act. In 1620–21, the only business Parliament did by way of legislation was to grant two subsidies of their own, and to confirm two subsidies by the clergy. In 1623–24 the Commons at their own instance give the king three subsidies and three fifteenths and tenths for the defence of the Palatinate, to be paid between December 10, 1624, and May 10, 1625. The clergy also gave four subsidies of 4*s*. in the £ each.

The Act appoints eight persons, seven Aldermen of London and one citizen by name, as treasurers of the fund collected; it reserves to the House of Commons the right of naming the collectors, and gives them powers of fine and imprisonment; and in order to secure the due appropriation of the fines, it appoints ten commissioners, four of them peers and six knights, to apply the grant to the recovery of the Palatinate.

It makes the quorum of the commission to be five, provided two of the five are Privy Councillors. This Act is the first modern instance of appropriation of supply, though instances of an analogous kind are found in earlier reigns[1]. The Lords took offence at the nomination of the treasurers, and at the judicial powers conferred on the collectors, consulted the judges, and on obtaining an assurance from them that 'the privileges of the higher House are not impeached or blemished or those of the lower House added to,' with certain other comments, the Lords pass this remarkable money bill without amendments. But the Committee of the Lords make a 'protestation,' and enter it on their journals, this being the first protest with reasons on record. Seventeen lords sign it, some of them being by no means friendly to the Court party. The motives were perhaps the king's notorious indifference to his son-in-law's interests, and the recent conviction of Lord Middlesex (Lionel Cranfield), the Lord Treasurer, on a charge of 'bribery, extortion, oppression, wrongs and deceits.'

James insisted, and in the case of Bates was confirmed in his opinion by the decision of the judges, that he was entitled by his prerogative to impose what rates he might think good on foreign merchandise. Hence the revision of the Book of Rates, commenced by Dorset and enforced by Cecil. It is very likely, as Cecil alleged, that the new rates were imposed 'after divers conferences with the principal merchants, and with their assent and allowance,' and that they were not so burdensome as was conceived. But the grievance was not in the amount, it was in the mode of their imposition, by the authority of the Crown and without the assent of Parliament. The discontent excited by this act of the prerogative was the beginning of that strife between King and Parliament which was not settled till after two revolutions, and by the ultimate victory of the House of Commons.

Of course, policy would recommend very moderate customs duties. Mr. Dowell states[2] that more than two-thirds of these

[1] E.g. the first Parliament of Richard II.

[2] History of Taxation, i. 219.

duties was collected at the Port of London, and it is clear that with the light craft of that time, with no officials of training and experience to collect the revenue, and with the numberless ports on the south coast, smuggling would have been easily and rapidly developed if the customs had been heavy. In the later part of the period before me, the imposition of what we should conceive to be very moderate customs duties by parliamentary authority gave rise to a host of smugglers, or as they were then called, owlers, and no repressive measures as well as no penalties were sufficient to deter them.

In 1615, Cranfield, who it is said had been originally in a merchant's office and to have had employment in the Low Countries, was made Surveyor General of the Customs. He was certainly in possession at the time of an estate in Essex, for his father managed it for him; and a record of produce and sales on it in 1614–15, preserved in the British Museum, has supplied me with a few facts. His abilities seem to have been great, and to have been employed with considerable success in the service of the Crown, for Mr. Dowell states that the customs, which had been £143,074 in 1613, rose to £248,000 in 1619. It is said that the experience he had obtained by practising mercantile frauds was now employed to detect and punish them, and that, owing to his skill, the revenue was enhanced. Unfortunately he employed his abilities for his own interest as well as for that of the king, was detected, deserted by his patron Buckingham, impeached, sorely against the king's wish, and deprived of his office. In the last year of the king's reign the customs we are told amounted to £323,642. In point of fact trade had greatly increased, and the fact that England was at peace, while nearly all the rest of Europe was engaged in the Thirty Years' War, naturally threw much trade into English hands.

In the first Parliament of Charles I, the Commons, evidently induced by the experience they had of Cecil's Book of Rates, refused to grant the king the customs for life, and limited their concession to a single year. The Lords rejected the

Bill, and customs were not granted legally to the king during his whole reign. Charles therefore levied it by order of Council, and declined, even after the Petition of Right, to relinquish what 'he never meant to give away, and could not possibly do without.' Nay, he issued a new Book of Rates in 1635, to the advantage of the Exchequer. When the Long Parliament met, the customs had reached nearly £500,000.

Three subsidies of 4*s.* in the £ were granted by the clergy, in the first year of Charles, and two by the Commons. After the concession of the Petition of Right, the Commons granted five subsidies and the clergy five. In 1629, Parliamentary government was suspended for eleven years, and the king had to resort to extraordinary expedients. He strained the feudal dues to the uttermost, enforced fines for knighthood, recovered large tracts of land from private owners, granted monopolies, and built up an exceedingly strenuous and persistent opposition against himself. Perhaps one of the bitterest of his enemies was the son of Salisbury, his father's old minister and adviser. Now Salisbury had suffered much loss by the new interpretation given to the king's forestal rights. The fines imposed by the Star Chamber were probably never enforced to the full, but the claim to impose them was intensely irritating, and was exceedingly arbitrary.

The device however which encountered the greatest opposition and led to the deepest discontent was the imposition of ship-money. The first writs, those of 1634, were addressed to the maritime towns only, and precedents for the naval service of those ports were abundant. Indeed the liabilities of the Cinque Ports were alleged as a reason why they should not contribute to an ordinary subsidy. The plea which they put forward was that Barbary pirates infested the narrow seas, and that it was the interest and duty of the ports to attack them, though the whole kingdom might with justice be called on to contribute. It appears that no resistance was made on grounds of principle to these first writs.

Next year the writs were extended to the inland counties,

indeed to the whole community, on the plea that as the benefits of the public defence were shared by all, the burden should be borne by all. Of course the real reason why the levy was extended was because, if it were successful, it would be four times as productive as any sum which could be imposed on the ports. It is supposed that the device was invented or revised by Noy, and at first employed cautiously, with a view to its subsequent extension from a real or mythical ship-geld of the Anglo-Saxon kings. But I suspect that Noy had other evidence, not indeed so recent or so cumulative as that which suggested the writs of 1634, and perhaps not capable of such obvious interpretation.

In my earliest researches into prices, principally in bailiffs' accounts of land cultivated on behalf of the lord, I have occasionally noticed charges which do not seem consistent with parliamentary grants[1] or customary payments. Two of these seem very like ship-money. Thus in 1296, the possessions of Merton College at Basingstoke pay *6s. pro warda maris*, and in 1338 Letherhead pays *2s.* for the ward of the sea at Shoreham. These are I conceive not customary imports, and certainly not parliamentary grants, and I conceive they were paid either in answer to a request from the king's officer, or to a levy made by the king's authority. What I have noticed in a few cases, might have been detected after a search by Noy, especially when the records had been handled by antiquaries of such eminence as Camden, Cotton, and Spelman. So again I find that Gamlingay in 1312 pays *4d.* on every mark of income *pro utilitate regni*, and again in 1321, *7s. 3½d.* for the burial of the dead in Scotland. These seem to be examples of exceptional levies imposed by the king's personal authority.

The ship-money was calculated to produce, according to Davenant, £206,980, or less than three subsidies. But it was to be an annual charge, for beyond doubt, if it were proved legal or were submitted to, Charles would have issued the

[1] Some of these are plainly grants of Parliaments the writs and rolls of which have not survived. See vol. ii p. 560.

writs yearly. Davenant is I think entirely in the right when he says that every care was taken to make the assessment as equitable as all the experience of those who assessed it could make it, and I have already treated this famous assessment as the first evidence for over a century which can be relied on for the distribution of wealth in England and Wales. The tax was in the highest degree unpopular: it was believed, notwithstanding the extra-judicial opinion of the twelve judges, to be utterly illegal. Nor did the divided judgement in Hampden's case mend matters. The tax we are told was worse paid after that judgement than it was before. Ship-money was levied on properties which had always escaped subsidies. Thus Corpus Christi College in Oxford pays it in 1635-6-7, and Eton in the last of these years. It may have been felt that after the plea for the imposition, however false and delusive it was, it would have been inexpedient to show any favour.

The Long Parliament set vigorously to work with the object of restoring the finances. It voted, by 16 Car. I. cap. 2, four subsidies for the army and the northern parts of the kingdom, and by cap. 4 two more; it voted tonnage and poundage from two months to two months. As the subsidies came in slowly, it passed a Bill, cap. 9, imposing a graduated poll-tax of £5 on every person possessed of more than £100 a year; 40*s.* on those who had £50 a year; 5*s.* on those who had £20; 2*s.* on those who had £10, and 1*s.* on those who had £5. They put a tax of 6*d.* on all persons above sixteen years of age who were not receiving alms, besides other charges, which may be found in the Act, on 'persons in dignified offices.'

By 16 Car. I. cap. 32, they directed a further levy distributed over the counties and chief towns, apparently those which were counties by themselves, for the suppression of the Irish rebellion, in which there are I think strong marks of haste or negligence on the part of Parliament, or reaction against what even in Davenant's time was thought to be the undue leniency with which the Western and Northern counties were treated, or perhaps of indifference, in the passionate

wrath with which the Irish revolt was met on the part of the county representatives, who generally worked very briskly to save their constituents in the assessment. It is even possible that the ship-money assessment, fair as it seems to have been, was thrown aside as untrustworthy in consequence of the odium felt at its origin and surroundings. In the next of their Acts, cap. 33, they passed a sweeping confiscation Bill for Ireland.

The war between King and Parliament is the beginning of the modern system of finance, the Parliament leading the way, and borrowing expedients for raising supplies from Dutch precedents. From the financial view of the situation, the Parliament was from the beginning in a position of overwhelming strength. It controlled, or rather had the uninterrupted sympathy of London and the wealthiest part of England, the Eastern, or as they were subsequently called, the Associated Counties. By far the largest part of the customs duties was taken at the port of London. They also for a time possessed the second commercial city of the kingdom, Bristol, till it was lost by the incompetent Fiennes. The city of London, from sheer good-will to the cause which the Parliament represented, made enormous sacrifices both in taxation and in advances to the Parliament's exchequer. Besides, the House of Commons was the unquestionable source and sole authority for taxation. The imposts of the king, deriving all their force from his own will and the authority of the Council, were the continuance of that system which Parliament had been called together with the purpose of putting an end to. Except for the generous gifts of his more wealthy supporters among the nobles and gentry, all the king's taxation was illegal, the richest landowners had generally very little cash at their command, and the supply of plate was very soon exhausted, even if it was so absolutely surrendered as to justify the contemptuous name of thimble-money, as the Roundheads called it. But on the other hand, nearly all the military experience of the country was on the king's side, though very little reliance could be placed on the returned adventurers of

the Thirty Years' War, if regular pay or abundant plunder, a very dangerous resource in civil war, were not available.

The excise was adopted by the Long Parliament on July 22, 1643. It was not in the form in which we know it at present, an internal customs duty to be collected from producers, whose business it was to recover it from consumers by ordinary sales, but a tax levied immediately on consumers at the time of purchase. To explain its action, the Parliament published lists of the price of most excisable articles, with a notification of the sum which the purchaser had to pay in addition to the price at which he bought at the time when the dealer sold it. It was therefore something like a universal octroi on consumers. In time it was extended to other objects, as on cattle and sheep by the head; and I have found entries in the accounts of corporations of the yearly payments made for excise, and sometimes of the charge at the instant of purchase. The king and the royal party denounced this financial expedient as rapacious and tyrannical, but soon adopted and enforced it whenever they could.

The assessments on property were levied by the Parliament on those counties where they could be collected. Thus on October 27, 1643, the House of Commons agreed to give 100,000 marks to the Scottish army. The largest contribution comes from the district known as the Bills of Mortality, that is London and Westminster and probably Southwark. The contribution is as follows.

Bills of Mortality, £26,666 13*s.* 4*d.*

	£		£
Hertfordshire	3000	Kent	6000
Bedfordshire	2000	Surrey	1500
Middlesex	1000	Cambridgeshire	2000
Essex	5000	Huntingdonshire	1000
Suffolk	5000	Northamptonshire	2500
Norfolk	6000	Rutlandshire	500

We may infer from this assessment that Parliament at the end of the first year of the war could calculate on collecting these sums from the counties named, and had no power of

direct taxation over the rest. On December 1, 1645, the levy on the Eastern Association is as follows:—

	£	s.	d.		£	s.	d.
Norfolk	7070	0	0	Suffolk	7070	0	0
Norwich	366	0	0	Cambridgeshire	2171	6	8
Essex	7050	0	0	Isle of Ely	728	13	4
Lincolnshire	2070	0	0	Huntingdonshire	1020	0	0
Hertfordshire	2432	10	0				

As the power of Parliament extended, first by the battle of Marston Moor (July 2, 1644), which entailed the loss of the North, and Naseby (June 14, 1645), which practically put an end to all the king's military power, the system of associating counties for mutual defence and assessment was extended. The statutes and ordinances of the Long Parliament and of Cromwell's own assemblies are full of financial measures, as may be seen for example in Scobell's Abridgement, and, as far as they are preserved, in the original Acts. Thus in 1657 there was published by authority of Parliament 'A Book of Values of Merchandise imported, according to which Excise is to be paid by the first buyer.'

The security of the Commonwealth, the safety of Oliver's person, and the need for providing against the activity of the Royalist party, made it necessary that a considerable army should be kept on foot, the navy for the time being maintained in the highest state of efficiency. Under the articles signed by Cromwell on 16 Dec. 1653, which constituted him Lord Protector, the army was fixed at 20,000 foot and 10,000 horse. To maintain this force and the navy, £120,000 a month was raised by county assessments. The cost of the Protector's civil government was about £200,000 a year, and besides this direct levy, there were customs and excises probably amounting to nearly as much as was levied by the assessment. One of the latest of these assessments was that of 1657, which was ordained for three years, England being rated at £35,000, Scotland at £6000, and Ireland at £9000 a month; Scotland and Ireland being now included in the Parliament of the Commonwealth. This reduction in the English charge seems to

imply that the customs and excise had become so productive that a less direct assessment was found sufficient.

As regards the assessment and the proportion which each county in England and Wales should pay, this seems to have been settled in the summer of 1649, for the levy of December 25 in this year differs greatly from that of March, and becomes the scale of all subsequent assessments during the Commonwealth, and indeed for similar expedients after the Restoration. It is obvious that after the king's execution, the undisputed victory of the army, and the centralisation of legislative and to a great extent executive powers in the residue of the Long Parliament, the novelty and unpopularity of the Government would induce those in power to be as far as possible equitable in the distribution of public burdens. During the time of the Commonwealth the ancient feudal liabilities were silently dropped.

The Restoration rather confirmed and extended the financial system of the Protectorate and Commonwealth. The law advisers of the Crown declared that the whole legislation of Parliament since the royal assent had been withheld from Acts was absolutely void, the last Act to which they conceded legal validity being that which excluded the bishops from the House of Lords. Hence the feudal dues revived with the ancient system of government. It was however felt that they would be so vexatious as to be intolerable, and on November 18, 1660, a proposal was made to distribute the equivalent of the dues taken at £100,000[1] a year on an average. The schedule has been printed in an earlier chapter. Davenant alleges that while they might have taken the assessment of 16 Car. I. cap. 32, the House chiefly relied on the ship-money assessment. Of course there were numerous assessments which might have guided them. But Davenant wished to urge that in all assessments, up to the time in which he lived and wrote, the Northern and Western counties had exceptional and inequitable favour shown them in these valuations.

[1] They had been put by James the First's advisers at £200,000 a year, in the project for commuting them. But this probably included the liabilities of copyholders.

The scheme, as is well known, was abandoned, and the estates of the landowners were relieved from feudal dues and aids at the expense of the general public, and by means of the hereditary excise. A struggle was indeed made for equity. It was seen in the first place that the plan of distributing the £100,000 a year over all lands and tenements would be unfair, as only those held by knight-service were customarily liable to the dues. It was therefore suggested that the lands held by knight-service only should be charged. But it was objected that the levy of these dues had been suspended for half a generation, and that purchases had been made under the belief that the liability had been finally extinguished. Now the Commons had agreed to make the king's annual income up to £1,200,000 a year, and Charles was daily informing them, directly and indirectly, that this sum would be far from adequate to the maintenance of the establishment which he had gathered about himself. It was necessary to redeem their pledges to the Crown; it was necessary to redeem their estates; the landowners found difficulties in redeeming them at their own costs and charges; the land must therefore be ransomed at the cost of other people. Hence they gave the king and his successors for ever that part of the excise which they selected and made hereditary. By a natural inconsistency, the landowners who relieved their own estates continued these burdens on their own copyholders, which in origin were similar to their own liabilities, were just as vexatious, and just as indefensible[1].

The Act which satisfied the king's claim and relieved the great landowners' charges is known as the Hereditary Excise Act. In the statute book it immediately follows on that establishing the Temporary Excise (12 Car. II. caps. 23 and 24), and the payments on excised articles are at the same rate in both. They are 1*s.* 3*d.* the barrel of strong beer (36 gallons),

[1] It was even retained in the case of freeholders. At the present time (1887) Magdalen College pays Merton College a relief on half-a-knight's fee in Chalgrove, on every occasion when a new President is elected. For the knight's fee, see vol. ii. p. 653. Of course the sum is fixed, and almost nominal.

3*d.* a barrel on small beer, 1*s.* 3*d.* on the hogshead of cider and perry, a halfpenny a gallon on mead, 6*d.* a gallon on vinegar, and 1*d.* the gallon on English spirits. Generally speaking, similar articles of foreign origin were charged with double excises; and coffee manufactured in the coffee-houses, now getting into repute, was charged 4*d.*, chocolate, sherbet, and tea 8*d.* a gallon. Of course these duties were independent of the customs. Charles was willing enough to accept the hereditary excise, as it was fully up to the calculation of that for which it was intended as a compensation, and was certain to grow.

Practically the hereditary excise was an octroi duty on the towns, especially London. It affected those only who brewed, made cider, perry and mead, and distilled spirits, or retailed foreign alcoholic beverages, or made tea and coffee for sale. Private brewing, private distilling, and private tea and coffee-making, in so far as the latter became a custom, and it grew towards the end of the period before me, were exempt from excises. The excises were not very heavy, at least not heavy enough to suggest the expedient of private brewing to corporations, perhaps not to the wealthier families. Towards the end of the century however Davenant comments on the shrinkage of the excise revenue, and refers in particular to the period after the Restoration, when the excise was increased. This is illustrated by the fact that in 1692, New College, Oxford, which had previously purchased its beer from the common brewer, begins to brew on its own account. The Cambridge Colleges, Winchester, and Eton had never given up the practice of private brewing, and therefore purchased malt and hops largely. Ultimately, as the wants of the Exchequer increased, the excise on manufactured beer and spirits was exchanged for malt, hop and spirit duties, and by the enactment of severe laws against private distilling.

But the Parliament were still far from satisfying the £1,200,000 a year which they had voted. A little was got by the resumption of grants out of the demesne lands of the Crown, in which it is probable that innocent purchasers of the

parliamentary party were treated with less consideration than similar purchasers among the old royalists. Charles soon squandered these sources of revenue among the women of his harem and their offspring. The next source of income was the hearth-money, a tax of 2*s.* a year on every fire-place, collected half-yearly, from all houses whose rental was 20*s.* and upwards. The tax was exceedingly unpopular, but supplied a sure revenue. Davenant says that at the epoch of its abolition it produced about £250,000 a year[1]. He states however in his table of assessments that the number of hearths was 2,563,527, and it appears that the average of hearths to a house was 1·9432, the first number apparently containing all the hearths, those which paid and those which were exempt from the tax. But even these taxes were insufficient, and both customs and excises were raised.

The situation at the Restoration required, beyond the settlement of the civil list, extraordinary taxes to meet emergencies. A poll-tax, graduated according to the rank and reputed means of individuals, was imposed by 12 Car. II. cap. 9, under which the five ranks of the peerage paid £100, £80, £60, £50, and £40 respectively, their eldest sons half the amounts; baronets and Knights of the Bath £30, knights bachelors £20, esquires £10, and an infinite number of officials, municipal, legal or civilian, varying sums, down to a charge of 6*d.* on every person over sixteen years of age. Again, £70,000 a month for two months was levied on the Commonwealth principle for the purpose of paying off the army and part of the navy, £70,000 was voted as an immediate present to the king, and in the same year, cap. 27, £70,000 a month for six months was levied for the payment of the army, by an income-tax of twenty per cent. on all estates down to those of £5 yearly.

By 13 Charles II, statute II. cap. 3, the Parliament granted the king £1,260,000[2] in six quarterly payments spread over eighteen months, a schedule of the rate payable by each county

[1] Ways and Means, p. 20.

[2] In this assessment, the old exemption of Oxford, Cambridge, Winchester, Eton, and the schools was revived.

and city or town separately rateable being given in the Act. The assessment in this case does not differ materially from that of December, 1653. By 14 Charles II. cap. 8, a sum of £60,000 to be paid to indigent loyalists was raised by a parochial rate, and by the ninth act or chapter of the same session the parish authorities were directed to pay pensions of not less than 2*s.* 6*d.* a week, and not more than 3*s.*, to maimed and indigent soldiers and officers. In 1663, Parliament granted for the last time the ancient subsidies from the clergy and the laity. But the incidence of the tax was so unequal, and the produce of it so scanty, that the system was henceforth abandoned. It is evident then that the subsidy was collected on the ancient valuations.

The reign of Charles II is marked by the fusion of clerical with lay taxation, and the concession of the parliamentary franchise to the clergy in respect of their benefices. The clergy had always been able to vote for members of Parliament in respect of their lay fees, and as I believe to sit in Parliament if they had no franchise for convocation. The innovation was inevitable. The clergy had been assessed under the Commonwealth on the same principle as the laity. But besides, the basis on which their subsidies were assessed was the valuation of Henry VIII, known as that in 'the King's Books,' and this had become entirely unfair, as the benefice, like the land from the proceeds of which its revenue was derived, had gained or lost, comparatively speaking, by the changes of more than a century and a quarter.

From this time forth, extraordinary grants were made from direct taxation, and generally on the lines which were laid down in the Commonwealth assessments. This is notably the case in the grant of a monthly payment from the counties, cities and towns, to commence with February 4, 1672, when war was declared against the Dutch and the king repudiated his debt to the goldsmiths. In 1670, again, a novel expedient was adopted in the shape of an income-tax of $\frac{3}{4}$ per cent. on bankers' loans, of six shillings per cent. on personal estates,

ten per cent. on offices, and five per cent. on land. On the accession of James, that monarch, relying on the panic caused by the surrender of the charters and the new modelling of the corporations, collected the customs which were not granted him. His pliant Parliament condoned the offence, gave him the life interest in excise and customs, imposed some additional customs on tobacco and sugar, and in short conferred such a revenue on James, as might have made him independent of all Parliaments for his natural life, if he had acted with the commonest prudence. Davenant calculates the revenue of the Crown in 1688 at rather over two millions.

The Revolution and the war which followed it necessitated the adoption of a new system of finance. But the finance ministers of the time were exceedingly in the dark as to the expedients which they should adopt in order to meet the emergencies which the Revolution had to face. The excise was unpopular; a rigorous custom-house system was impossible. There is nothing I presume more difficult than to extemporise a preventive service in a country like England, which swarms with creeks and harbours into which vessels of light draught can readily run. The owler, as our forefathers ingeniously called the smuggler, had the start of the preventive, and knew the country intimately. More than a century after the times on which I am commenting, organised bands of smugglers, armed to the teeth and safe in their hiding-places, successfully baffled exciseman and revenue officer[1]. Macpherson states, though without comment, that during the eighteenth century the Scotch customs did not amount to the cost of collection. The Government determined on excluding French goods, and the London merchants in sheer self-defence were in collusion with the owlers. The Government could not check smuggling effectually, and the dealer who paid customs was seriously handicapped by those who could evade duties.

[1] My father told me that in the early part of the present century he had often seen such a band ride through the Hampshire villages in the south. The peasantry sympathised with them, and they were not unwelcome to the gentry.

The Hollanders, who had acquiesced for very life in excises, had been educated under a system which was severely enforced, as it had been long obeyed. But nothing could be more crude and ill-arranged than the English financial system. Governments kept office long after they ceased to possess a working majority in the Commons. Private members proposed taxes. The country swarmed with financial quacks, who were constantly putting forward their schemes in pamphlets, and urging them in the lobby and the Court of Requests. In consequence, financial expedients in the way of excises were constantly financial failures. Parliament put excise duties on glass, on stone-ware, on pottery, and put them on so unwisely that they ruined the industry. The safest subject of taxation was beer and spirits. But the legislature only taxed the common brewer and the manufacturing distiller, and left private brewing and private distilling alone. Davenant assures us that this practice or policy of Parliament rendered the produce of the excise disappointing, and recommended a malt-tax, which was imposed in 1697. But even here, as seems obvious from comparing the prices of barley and malt, the tax was paid by the purchaser at the time of sale.

There was no remedy then but to borrow money, to assign the product of particular taxes to the payment of the interest, and to rely for the greater part of the charges of government on direct taxation. A land-tax of four shillings in the pound, a tax on personal property, gains of office and salaries, on annuities or profits, and even on workmen's wages, and poll-taxes, were inevitable. It was necessary too, in order to secure funds for current expenditure, to anticipate revenue by tallies, issued at a heavy discount, for the very sufficient reason that the holder of these securities had generally to experience the inconvenience of deferred payments. In addition to which, the vicious system under which the officials of the Exchequer, beyond and above their percentages, were allowed to handle and deal with the balances of public money in their hands, till such time as their audit came round, instead of paying

their receipts into the Exchequer at once, added to the weight and waste of taxation. The greatest part of the burden during the first war with Louis XIV fell on land, and the tax on rents, now become a trivial quota from the proceeds, was then a very serious charge.

The complete and exhaustive account of Postlethwayt, in his History of the Revenue from 1688, informs us that the total supply granted between November 5, 1688, and December 31, 1697, including more than nine years of war or of the preparation for war, and a very imperfect settlement of its outstanding charges, was £45,127,160 7*s.* 1¼*d.*,[1] or about five millions a year; and that the public debt on December 31, 1697, was £21,515,742 13*s.* 2½*d.*, not a funded debt, but the greater part a floating liability. Even during the four years of peace from January 1, 1698, to December 31, 1701, a further debt was contracted to the amount of £3,728,911 5*s.* 6¼*d.*[2]

Whatever allowances may be made for William and his advisers, whatever praise is due to Montague for his services in founding the Bank of England in 1694 and for extending its privileges and securing its position in 1697, for his firm attitude at the time of the recoinage, and for the manner in which at the most critical time he invented and circulated Exchequer bills, and lastly whatever credit he may claim for having obtained the timely advance of £2,000,000 from the English East India Company, it cannot I think be contended that William's government was not remiss in failing to grapple with the financial situation during the years which followed the Peace of Ryswick. According to Postlethwayt, the ordinary expenditure, not allowing for interest on debt, over a million sterling in 1701, was less than a million and a-half in 1699–1700.

[1] Another account makes the grants during the whole of William's reign amount to £55,407,078 16*s.* 8*d.*

[2] Some of this debt was in course of being paid off. In point of fact, the only funded debt in our sense of the word in 1700 was the debt to the Bank, that to the East India Company, and the goldsmiths' compensation.

CHAPTER VII.

ON THE PRICE OF GRAIN.

DURING the period comprised in these volumes, the prices of wheat, malt, and oats are continuous and unbroken. The price of barley is in the later period interrupted, and at last almost ceases. There are a few years in which the price of oatmeal and wheat-meal is wanting. There is no year in which a record of leguminous seeds is entirely absent, though entries of peas, a constant crop in Cambridgeshire and other Eastern counties, are, owing to the fact that the Cambridge accounts are better preserved than those of Oxford, more frequent than those of beans, a common object of Oxfordshire agriculture. Rye, though occasionally recorded in the earlier accounts, almost disappears as time goes on. It was not consumed by the class whose expenditure and income is the chief material for this part of my work.

The corn prices of these volumes chiefly come from Oxford, Cambridge, Winchester, and Eton. They are partly due to the act of 1576, prescribing that rents should be paid to those corporations, up to a certain extent, in corn; the corn, viz. wheat and malt (to which Winchester added oats, probably because some of its land could not grow either wheat or barley), being payable in money, at the highest price of the several markets of the towns (Windsor in the case of Eton) in which the rent became due. They are partly owing to the practice of supplying the corporation with bread and beer at the offices of the corporation itself. In Oxford, the College went to the common baker and the common brewer, as a rule,

because, as I argue, the powers of the University over bakers and brewers were, by charter and statute, so summary. But in Cambridge, Winchester, and Eton, where these powers did not exist at all, or existed in a very moderate degree, the practice was for the College to supply its inmates by its own action. This explains the origin of the bakehouse accounts of S. John's College, Cambridge, that poor but exemplary institution, which has so honourable and continuous a reputation in Cambridge. Unfortunately they are lost before 1607, perhaps because they get, by ill-luck, into some attorney's office. But from this time the series is unbroken.

The Cambridge colleges preferred the system which they had adopted before the Act of 1576, under which they called on their tenants to supply them with farm produce at fictitious, but ancient average prices, to the new system. To this they slowly gave in. But, wiser than the Oxford bursars, who were changed yearly, they took care to have more than two rent days. They knew that wheat was cheapest in the first quarter of the agricultural year, 25 per cent. dearer in the second, from January to April, and 12 per cent. dearer still from April to July, when a fair estimate would be made of the coming harvest. Thus King's College had at least ten rent prices, S. John's always six. Eton adopted the practice of having six, but soon abandoned it. Winchester always had seven. None of them, except King's, got beyond August 1. I should not have known as much as I do of the Oxford prices, except for the All Souls accounts, which give a later day than March 25.

The private expenditure of the corporation is different from its receipts under the Act. Had I procured an unbroken series of these statistics, I should have been able to infer as to the difference between a maximum and an average price, in which the buyer of produce had a very different interest from that of the same person as a receiver of rents. I have it at S. John's; I got it occasionally at Eton; and in so far as their records have not been lost or sold by the New College attorney, as long as this corporation bought corn. Generally

the consumer got the better of the rent prices, but sometimes the official went to sleep, and had to pay for his negligence. Out of ninety-six years in the present series, the S. John's College official was caught napping, and paid a higher average than the College received, in nine only.

The Winchester accounts are invaluable as far as they go. But for some unexplained reason, all the early accounts of this famous corporation have disappeared. Winchester is, I believe, the only great institution of the kind which has been heedless of its records. It is a small matter to lose the private record of a man; it is a social crime of the highest kind to destroy the private history of an institution; and this too of an institution which Wykeham made the type, and made it successfully, of the English public school. It is difficult to believe that there were personal motives in destroying this history; I prefer to infer that the attorney has done the mischief. Winchester is a small town, and probably endured the doctrine of an attorney's lien to the uttermost.

Besides the accounts from these four great centres, a few others have been discovered and consulted. There are some from the domestic accounts of the first Lord North, others from those of the first Lord Spencer. There are some from the family records of the Earls of Pembroke, on an estate of theirs at Worksop. There are the Shuttleworth accounts at Gawthorp; those of D'Ewes, of the Caryl family, in West Sussex; of the Archers at Theydon Gernon; of Johnson and Lord Lovelace at the conclusion of the period, besides other scattered records. Most of these are in the MS. Department of the British Museum. But domestic accounts during the seventeenth century are exceedingly rare. The search for them has been incessant; the price paid for them, when they are found, is high.

Some prices have been gleaned from the publications of the county archæological societies, notably the accounts of Mr. Master of Yotes Court in Kent. A few have been found in the Rawlinson and Tanner MSS. preserved in the Bodleian

Library. But the fact remains that the principal source of information, and I may add the safest, has been the four great centres already referred to.

I shall now proceed to comment on the several harvests of the period dealt with in these volumes. In doing this, I dwell as the case arises with the averages in each locality. When I have treated those which I have found and registered in the first hundred pages of the sixth volume, I shall deal separately with the prices contained in Houghton's Collections, for taken as they are from a very wide area, it may be well to deal with them by districts.

It may be proper however to premise, that apart from the fact that the seventeenth century is affected to the full, at least as regards corn prices, by the new silver and gold, it is also characterised by a peculiarity which I have never yet been able to notice in the long research which I have given into corn prices, now with the years in this volume extending to 444 harvests. This is the fact that good and bad seasons lie in groups of more or less extent. The fact was recognised in a rough way by the agriculturists of the time, who constantly discuss the question as to how the farmer with his fixed rent and fixed charges can tide over a period of (to him) ruinous plenty, and how in a series of dear years the labourer can also tide over a period of (to him) semi-starvation. None of them seem to have thought of the only remedy.

1583–4. The average price of wheat for this year is slightly above that at which it stood in 1582–3. But by this time any price below 20*s.* a quarter represents a cheap year, and we shall very soon find that average prices are enhanced fully 50 per cent. The price at Cambridge (King's College) is unchanged during the whole year, and I should have thought represented contracts entered into for the year's supply, had not the original account expressly stated that they were purchasers 'in foro.' The price at Cambridge is however lower than elsewhere, and we shall find this to be a constant characteristic of these local prices. The average from the Oxford entries (for whatever may have been done at first with the Act of 1576, the rule was speedily adopted of taking Oxford corn prices as the basis of the

rent) is 18*s*., and the general average is heightened by the prices from Gawthorp in Lancashire and from Worksop in Notts. Barley is little more than half the price of wheat, though some of the entries are for seed. But three of the entries are from the Eastern counties, where barley is always cheap. Malt is found in Oxford, Cambridge, Eton, and Worksop; but its proportion to wheat is what is customary. Oats and oatmeal stand at proportionate prices. Beans are found at Oxford only, where they are bought during the winter months for the Corpus College stables, as they are indeed continuously, though unfortunately the College very often gives a summary of the cost they incurred for the stable by the hand of the groom. Peas are found in Cambridge, in Norfolk, and in Notts. There is nothing to comment on in the price of these kinds of grain. Rye, which is rarely given in my accounts, and will soon disappear entirely, is as usual a little below the price of malt.

1584–5. The evidence is derived from several sources. Wheat is on the whole cheaper, and would have fallen still more, had it not been for anticipations of a scanty harvest, which plainly became current as the summer went on. This is especially seen in the All Souls account. This College takes its corn rents on two days, which I have not been able to identify in the accounts. They are probably however Nov. 2 and six months afterwards. Hence the second All Souls corn rent is a fuller indication of how the coming harvest was interpreted than the second general Oxford account on Lady Day. The Kirtling account gives three kinds of wheat: grey, the cheapest; white, the next; and duck-bill, the dearest; the white wheat being a May price, when prices were very apt to rise. Barley is a few pence dearer than the year before, the purchases being generally of seed. Malt follows almost exactly the decline of wheat, the second All Souls entry being at a lower price than the first. Two entries of 1599 at Worksop are strangely contrasted. I can better understand the low price of the second, than I can the high price of the first entry. Oats again are cheaper, as is also oatmeal, purchased at Oxford and in Norfolk. Rye comes from Hardwick only, and is at its natural price. Beans are found at Oxford, peas at Cambridge, where they are rather dear, the price being heightened by the last entry. Wheat-flour is purchased at Oxford, now I presume by quantity, for we shall henceforth find that a quarter of flour is not, as in earlier time, the product of a quarter of wheat.

1585–6. The anticipations of a deficient harvest, evidently entertained in the previous summer, are verified during the greater part of this year. The price of wheat is high, comparatively speaking,

at Michaelmas, and increases up to May, after which a sharp decline takes place. This is illustrated by the two accounts from North-west England. The Kirkby Stephen notes are taken from an account book for thirteen months, preserved in the British Museum. The Gawthorp are of course from the Shuttleworth accounts. It will be seen that from the middle of March to the middle of May the price of wheat rises continually, and thence falls till September. So at Oxford there is a considerable rise between Michaelmas and Lady Day, and a more marked rise between the first and second of the All Souls entries. To judge from the facts, it would seem that when the harvest was fairly housed, it was supposed to be better than the experience of the spring proved, and that there was considerable fear of a short supply, but that there was good promise of a plentiful harvest in the summer months. The same facts are illustrated by the prices of barley, chiefly seed, and malt, which stand in their natural proportion to wheat. There are a few entries of oats, and at their proportionate price; as is also oatmeal. Rye is very dear during September, 1586. The price of beans is heightened by an entry from Gawthorp. Peas are at their natural price. The flour bought by the city of Oxford is plainly purchased on the old system, that of the two colleges on the new.

1586–7. The price of wheat is greatly exalted, to a price indeed far beyond any previous experience. It plainly rises towards the latter end of spring; and to judge from the market return of Barnstaple, reached the enormous price of 64*s.* at this time of the year. It is equally dear in Lancashire and the North, for it is purchased at 72*s.* a quarter at Gawthorp. But the panic or fear of dearth does not extend beyond the period quoted above. In Oxford market the highest price is on May Day, at All Souls on the first of their audit days; on the second of these audit days it has again become quite cheap. The fact is, the promise of the coming harvest was exceedingly favourable. This is further illustrated by the fact that the last Cambridge purchase is little more than half that which precedes it. Still for a considerable part of the year there must have been great distress and alarm. The entries of barley throw little light on this grain, as they are trivial. But malt, though dearer than before, does not rise so much. The average is heightened by the price paid at Worksop. Very little information is found as to the price of oats and oatmeal, though both seem to indicate that this crop was not a short one. Rye is very dear, the prices from Hardwick being given for five consecutive months. Beans at Gawthorp are very dear, but at an ordinary

price at Oxford. Peas are at ordinary prices at Cambridge, but rather dearer at Worksop. In general, I conclude that the harvest of this year, though generally deficient, was worst in the West and North. Flour and wheat-meal are found at Oxford.

1587–8. Prices are universally low. The King's College purchases (for the College has not yet adopted the Act of 1576) are given for two quarters, Michaelmas and Lady Day, the price varying between 16*s.* and 14*s.* in the first of them, between 10*s.* 8*d.* and 12*s.* in the second. In Norfolk, on Lestrange's lands, wheat is equally cheap, as also at Kirtling. In Oxford the market sinks from Michaelmas to Lady Day, and rises in the All Souls rent. The average would be lower but for the Worksop entry, which is the highest of all, well nigh double the Cambridge average. Barley is cheap, though some seed is dear at Worksop. But a large quantity is sold from Norfolk. Cambridge gives no malt prices, relying for supply on its contracts with its tenants, all its supplies coming *ex conventione lessae*, as indeed all of its wheat does, in the second and fourth quarters. But we can gather what the Cambridge price of malt was from Kirtling, viz. 8*s.* 6*d.*, that of Norfolk being 14*s.*, while the Oxford market is at 13*s.*, the All Souls rents at 10*s.* 4*d.* Oats are cheap at Eton, Kirtling, and Worksop, as is also oatmeal. Rye is found in Norfolk at an average of 9*s.* 10*d.* Beans and peas, evidence for which is rather plentiful, are also cheap. Vetches, now a rare crop, or at any rate a produce rarely purchased, are found in two places this year. The harvest of 1587 must have been uniformly abundant. Wheaten flour at Oxford is also cheap.

1588–9. Much of the low price of 1587 may have been an anticipation of the harvest of this year, in which wheat was cheaper than in any other part of the period, cheaper than in any year since 1571. The evidence, it is true, which I have is rather scanty, and the price rises in Oxford as the year goes on. It is possible too that had the Northern counties supplied me with evidence, the price would have been exalted. It is also probable that the average produce being of good quality the upset price of the corn-rents was an entirely abnormal one, for the Cambridge account is entirely of purchases. Even under these circumstances the maximum prices at Oxford, the only corn-rents of the year, stand at 16*s.* 8*d.* on the average.

This year, as my readers are no doubt aware, was that of the Spanish Armada, in the destruction of which the equinoctial gales played so sudden and so effective a part. These fierce south-western gales, from whose premature appearance and violence England always has had to suffer dearth or loss, came opportunely in 1588; and

having spared the English harvest, wrecked the Spanish fleet. The price of barley, supplied from the Eastern counties only, is also low, though, as is invariably the case with cheap wheat years, not proportionately low. I have not inserted the price of the eight quarters bought on Lestrange's Lands in December, for I am sure that there must be an error in the account. The most careful scribe is not always exact, and a survey of the year's prices convinces me that an error has been made. Here again the Oxford Market and the All Souls prices are suggestive, both being derived from the same returns, i. e. of the clerks of the market. Some bigg bought at Worksop is nearly as cheap as in the first half of the century. Rye is cheap, as also beans and peas. I have not included in the latter the Worksop prices; they are all seed, and do not represent average values. Oats are very cheap, though the average is heightened by large purchases on the Wardrobe account. The price of oatmeal is almost absolutely uniform in places as distant from each other as Oxford, Norfolk, and Worksop.

1589–90. The evidence for this year is scanty. King's College, Cambridge, and Eton still depend on the supplies paid to them through their leases, though the former sells a small quantity of surplus wheat and malt. The Oxford prices indicate that there was a rise shortly after Michaelmas, and that this continued till later in the year. The prices of wheat at Worksop are a great deal higher than the average, and it seems clear that the harvest varied with the locality. Wheat-flour is a little dearer than it was in 1588–9. These results are further illustrated by the price of barley and malt. There are not many of the former, but both these kinds of produce are cheap in the Eastern counties and comparatively dear in the Midlands, the price rising according to the All Souls rents after Lady Day. The same fact is illustrated from the purchases of malt at Worksop, where the entries appear to imply monthly buyings. Oats, on the other hand, are cheaper than they were the year before, some in Norfolk being exceedingly low. But there was a cheap kind of oats grown in the Eastern counties under the name of fen oats, of which we shall find entries further on. Oatmeal is rather dearer. It appears here for the first time in two forms, meal and groats, the price being hardly different. Probably it is a mere distinction between coarsely and finely ground oats. The single entry of rye from Worksop corresponds with the price of wheat in that place. Peas are found in Cambridge, beans at Oxford, and in the latter case the price rises as the year goes on.

1590–1. The evidence is rather more copious. Wheat is rather

dearer in Cambridge, where the College (King's) still gets its supplies at nominal prices from its lessees. It sells however 20 quarters at 20*s.*, and 40 quarters of malt at 13*s.* 4*d.*, the latter having been by an oversight omitted from the evidence. These prices are the first illustrations of the difference between the highest prices of the Act and ordinary market rates, for in this year S. John's (Cambridge) adopts the Act, though only to a limited extent, the average here being 22*s.* 5*d.* Wheat is dear in Lancashire and Notts, but is only a little higher at Oxford than at Cambridge, the second All Souls price indicating a falling market, as is seen in August and September at Hardwick. Barley is rather dear, as is also malt, of which again there is apparently a monthly purchase at Worksop. I have found oats in one locality only, but oatmeal at both Oxford and Worksop, there being no material difference in the price in the two places, whether the produce is described as meal or groats. Peas are found at Cambridge, beans at Oxford, and both are dearer. Wheat-meal is rather cheap.

1591–2. This is the last year in which the average price of wheat falls below 20*s.* There is neither rent price nor purchase at King's College, but 20 quarters are sold at 16*s.* S. John's supplies only one corn rent, that of Michaelmas; but it is clear from the Hardwick account that prices fell as the year advanced. Three sets of prices are supplied from Oxford, one being a special estimate at New College, which under the same dates is lower that the Market return. The All Souls return notes no change during the year, and the Worksop prices are low. Barley and malt are both much cheaper than in the preceding year, prices falling rapidly after the harvest, as is discernible in every account. There is again a high price of bigg at Worksop. Oats are decidedly cheap, and so is oatmeal. No price of peas has been found. Beans are purchased in Oxford, and at declining prices.

1592–3. The harvest of this year must have been very much the same as that of the previous year. King's College sells at very low prices, and the solitary rent registered by S. John's is also low. It appears from the four Oxford entries that the prices remained almost stationary till the summer, and then decidedly rose. The same fact is indicated by a dated purchase at Worksop in September, and by an undated one at Seal in Surrey, the rate of which has affected the average considerably. Barley and malt are cheaper than at any year during the whole period, a large quantity being sold at King's at 8*s.* 4*d.*, and the Oxford and Worksop entries being all low, the latter giving

a very cheap rate for seed bigg. Oats again are exceedingly cheap, as is also oatmeal. Rye is sold at Hardwick at a low rate, and peas at Cambridge and Worksop; beans at Oxford, the price in both cases being very moderate. The average price of wheat-flour is unchanged from that of the previous year, oatmeal being slightly cheaper. These facts indicate that not only was the harvest abundant, but that its quality was high.

1593–4. With this year the corn rents of S. John's, Cambridge, are regularly commenced. It has this year only five of these days, but subsequently it always gives six, ranging from September 29 to August 1. The price is comparatively low in all places as the year begins, but becomes higher as the summer goes on, and the prospects of the next harvest are forecast. This is seen in the Lammas price (August 1) at Cambridge and the second price at All Souls. Some sales however at Worksop in September, 1594, are at comparatively moderate prices. Wheat-flour is cheaper in London than it is at Oxford, though it is described as fine. Barley and malt are also cheap, though the latter rises as the year goes on. There is an entry of barley-meal at London in June, the price of which is low. But all other places point to the rise which takes place in the summer. I find but one price of oats, where they are exceedingly cheap. But the price of oatmeal and groats, though a little higher than before, is fairly in accordance with other corn prices. Rye at Hardwick is at proportionate prices, as are also peas at Cambridge and Worksop, and beans at Oxford, purchases being apparently made for the Corpus stable every four weeks in the year.

1594–5. We are now coming to a period of four years during which prices were exceedingly high, two of them being years of actual famine, the cause being, as usual, wet seasons. King's College sold certain parcels of wheat and malt during the Christmas term, i. e. from December 25 to March 25, and some malt in the next term. These sales are made at lower rates than is indicated by the S. John's corn rents, which stand unchanged at 40*s.* all through the year. Eton also buys at 40*s.* The average rate of the Oxford rents is 44*s.* 9½*d.*, the second All Souls rent indicating a slight fall. But the general average is lessened by the Worksop sales, which are made from October to March at an average of 26*s.* 8½*d.*, though the price is highest towards the end of the series. The Lancashire price does not differ much from that at Cambridge. The sales of barley and bigg are few. Barley is cheap in Lancashire, even when it is seed. Bigg is dear in Notts. The malt sales of King's College are at an

average of 17*s.* 0¾*d.*, the malt rents of S. John's at one of 21*s.* Eton buys a hundred quarters of malt at 20*s.* The average of the four Oxford rents is 23*s.* 4*d.*, while four purchases at Worksop are at 31*s.* 2¼*d.* Oats vary very considerably in price. A small quantity is very dear at Cambridge. But at Gawthorp, a large quantity, bought by the sieve or double quarter, is very cheap. Nor are they dear at Holme and Oxford. Oatmeal is found in London, Oxford, and Worksop, but not at excessive prices. Beans and peas are not particularly dear, the former being bought extensively at Gawthorp at 17*s.* the quarter, and regularly at Oxford and Cambridge. Peas are a good deal dearer than beans, a fact which probably explains the unusual purchase by King's College for the stable, this corporation generally feeding their horses on peas.

1595–6. The King's College sales in the Christmas and Lady Day quarters are effected at a fraction under 36*s.* The S. John's account gives an average of 40*s.* 11½*d.* Eton purchases at 40*s.* at Lady Day, which seems to have been nearly the cheapest time of the year, if not the cheapest. But in August the price rises to 60*s.* at Cambridge, and according to the second All Souls rent to 64*s.* in Oxford. The sales and purchases at Worksop rather depress the average. They are plainly effected at the earlier part of the agricultural year. We may be certain that the prospects of the harvest in the late summer of 1596 were exceedingly gloomy. Again, the two entries of barley do not indicate excessive prices; but they are pretty certainly early purchases. The sales at Cambridge are at moderate rates; they are as before of the farmers' overplus. But the S. John's rents show the same facts, that the wheat rents do, and these facts are further illustrated by the second of the All Souls rates. Eton buys a large quantity of malt at a fairly low price, most likely in March. There are few entries of oats, and these are low but rising. Oatmeal is not much affected. The rye sales and purchases at the three localities are significant, for that of Worksop is dated, and that large quantity purchased at Ipswich was, I am told, expressly bought for the purpose of distribution among the destitute. There is nothing particular to note in the price of peas and beans. The average of the former at Cambridge is 16*s.* 11¾*d.*, at Worksop 18*s.* 8*d.* But these articles were generally purchased for winter feed in the stable.

1596–7. The surplus wheat at King's College is sold this year at 43*s.* 10*d.*, and as usual in the Christmas and Lady Day terms. The average of the S. John's rents is 48*s.* 6½*d.*, the price rising steadily through the agricultural year. But at Eton the Lady Day purchases

cost 64*s.*, unless the expression in the account 'beyond the 8*s.*' implies that for any excess over the stipulated quantity the College had to pay 72*s.* At Hardwick the average is 51*s.* 6½*d.* The four prices at Oxford are at an average of 65*s.* 5½*d.* But the All Souls rents suggest that the maximum price was midway in the year, and that it declined in the summer. The quality of the corn is well indicated by the price of seed-wheat at Worksop in September. Some sales are made here from September to September. The first is plainly of very inferior grain. Then follow four sales in October and November, and three in August and September 1597, in the last of which the price is as high as at Cambridge on Lammas Day. I have found no price of barley in this year, but the rise in the price of malt corresponds with sufficient accuracy to that of wheat. Oats, except in one locality, are exceedingly dear; and oatmeal, under the name of groats, is quoted at 80*s.* Rye at Worksop is dearer than wheat at Cambridge. Peas are high at Cambridge, exceedingly high at Worksop. But beans are not quite so dear. The year is one of serious famine.

1597–8. In this year King's College adopts the Act of 1576, though only four of their estates are put under wheat rents, eleven being put under malt rents. The College is evidently indisposed to abandon its old practice of covenanting with its tenants that they should supply quantities of wheat and malt at low or nominal prices. But henceforth the King's College prices are of the highest market rates on certain days. The same fact applies to the malt prices, except that in this year the College sold 22 quarters to a private individual at 22*s.* The highest rate of the year at S. John's is on Candlemas Day (February 2), when the quotation is 50*s.* 8*d.* At Eton it is 60*s.* at Michaelmas and Lady Day. The average at Oxford is 50*s.* 6½*d.*, for the price is depressed by the second All Souls sale, the prospects of the coming harvest being now far more satisfactory. The highest prices of the year are those of Worksop in September and October, by the middle of which month, if the entry is of good quality wheat, the price has fallen 21*s.* 3*d.* the quarter. One entry is interesting. It is quoted from Halliwell's Shakespere[1], and is extracted from a letter of one Shirley to Quiney, stating the prices of seed-wheat, barley, and beans on January 24, with the quantities he bought of each. In this year, we learn from the Stratford records, the local authorities took account of all the stocks of wheat possessed by the townsfolk. The high price is an indication of how scarce sound seed was. Seed-barley is also purchased at Worksop, but at a lower

[1] Halliwell's Outlines, p. 456 (5th edition).

rate, and also a kind which the account calls 'broad,' the average of nine Worksop prices being 25*s.* 5½*d.* The price of malt at Cambridge is lower than is proportionate, but it is a rule of prices, that when necessaries become dear, in this case bread, luxuries, in this case beer, fall in price. In malt the All Souls price is very suggestive. Rye corresponds in price to wheat. Oats are less in price than in the previous year, and oatmeal, if I can judge from the only return, from Worksop, indicates that this grain was good in quality. Beans and peas are cheaper.

The years just commented on were the worst famine years of Elizabeth's reign. I can have no doubt that the event made the poor-law a social necessity. They are also the beginning of a new epoch, i.e. one in which high prices would be the rule, though the fact is not plainly proved till after the great queen's death and the accession of James.

1598–9. Both King's College and S. John's, Cambridge, supply accounts of rent prices for this year, the former still divided into quarters or terms, in which wheat rents are far less common than malt rents. The S. John's account shows that the price rose slightly up to Candlemas, then fell, then rose to Midsummer and fell at Lammas, though the changes are trivial. The average is 25*s.* 2½*d.* At Eton the price is unchanged. At Oxford the average is (from six entries), 30*s.* 10¼*d.*, the second price at All Souls suggesting a declining market. The only price of barley comes from Worksop. It is nearly all seed, and of course of good quality. Malt at Cambridge is at an average of 16*s.* 5¼*d.*, at Eton of 23*s.*, at Oxford of 20*s.* 11¼*d.* Oats are at all kinds of prices, but are not dear. The rye prices of Worksop are rather below an average, but they are late in the summer. Peas and beans are cheap. The year is above the average of fertility.

1599–1600. On the whole, prices are rather lower this year, though in the three typical localities they do not vary materially. Wheat is at 27*s.* in Cambridge, the price rising notably at the end of the agricultural year, at 30*s.* 2*d.* in Eton, at 28*s.* 4*d.* in Oxford, at 32*s.* in Worksop, and at 31*s.* 1¼*d.* at Wormleighton, Northants, where the summer price closely corresponds to that in Cambridge. As far as wheat is concerned, there is very little difference between this and the last year. As regards barley, there is only one price from Gawthorp, where it is rather high, and is probably seed. Malt is cheap at Cambridge, but rises at the end of the agricultural year. It is lower at Eton on Lady Day than it had been at Michaelmas, but

suffers no change during the whole of the two dates of the Oxford Market. But it is less than the Oxford Market price at All Souls in the first quotation, much more in the second. The same rise is seen at Worksop. Oats are cheap, as is also oatmeal, or groats. Rye is dear, the only price being probably, for the most part, purchases of seed. Beans and peas are both at natural prices, the entries of the latter for this year being considerable.

1600–1. The King's College accounts give the quarterly rents, prices declining throughout, though not till the last quarter materially. The S. John's record presents a similar register, the variations in this account being inconsiderable. At Eton the average is 40*s.* 8*d.*, while that of the two Cambridge colleges together is 29*s.* 2½*d.* At Oxford the average of seven entries, New College adding a Midsummer price to its rents, is 33*s.* 9¾*d.* Here the price declines. At Worksop ten returns give an average of 35*s.* 3½*d.* There are two returns of barley, one described as seed, the other probably of the same quality, which give a relatively high price. The malt prices are 20*s.* 11¼*d.* at Cambridge, 24*s.* at Eton and Michinhampton, 21*s.* 6¼*d.* at Oxford, 29*s.* 1½*d.* at Worksop. The price of oats is very various, as low as 8*s.*, as high as 24*s.*; while at the same place in which seed-oats are purchased at 14*s.*, oatmeal is purchased at 24*s.* Rye is nearly as dear as wheat at Worksop, but the entries are probably seed. The price of beans is lower than that of peas; of the latter there are several entries. At Cambridge the average is 19*s.* 9½*d.*; at Worksop, where the dearest is seed, 25*s.* 6¾*d.* At Wormleighton there are several entries in the summer which do not materially vary. But there are two of 'white peas,' the price of which is so high that I have not included them. They are plainly for human consumption.

1601–2. The wheat prices from the King's College rents are very low, representing an average of only 17*s.* 4*d.*, while those of S. John's are at an average of 21*s.* 6¾*d.* The highest prices of the year are at Michaelmas and Lammas, the lowest at Midsummer, the next lowest at Lady Day. At Eton too the highest is the Michaelmas, the lowest the Lady Day price. The same variation is visible at Oxford, though the second All Souls price is high. The general Oxford average is 25*s.* 11*d.* At Theydon Gernon, a place we shall see for some years, the average is 21*s.* 6*d.* In Worksop it is much higher. At Wormleighton, in a series extending from October to September, the average is 22*s.* The price of wheat never falls so low again, as it is this year, till 1654, and then only in that year. Seed-barley is found in Lancashire and Nottinghamshire. Malt at first is dear at Cambridge, but

falls, and it is on an average only 14*s.* 1½*d.* At Eton again it is 25*s.* 4*d.* at Michaelmas, 18*s.* 8*d.* at Lady Day, while at Oxford, where the average is 16*s.* 9½*d.*, the second All Souls price is only 13*s.* 4*d.* At Worksop and at Wormleighton malt is dearer. In the former of these localities bigg is again at a higher price than barley. Oats are cheap in the two localities which supply information, and the price of oatmeal or groats is also low. Certain entries of rye, one of which is described as seed, and all at Worksop, are dear. Beans at Oxford and Cambridge are low, and peas are also cheap. This applies even to peas used for cookery, a considerable quantity of which are purchased. All kinds of grain are cheap this year; the information being varied and extensive.

1602–3. In this year, the averages of the Cambridge corn rents is 22*s.* 6½*d.*, the highest price being at or about Lady Day both here and elsewhere. At Eton it is 34*s.* 8*d.*, at Oxford 29*s.* 1¼*d.* At this locality, one of the Colleges begins to purchase wheat for its own domestic baking, and continues the practice for a good many years, thus affording a second price, i. e. of voluntary purchase, as contrasted with the rent price, the highest market price on given days. Theydon Gernon and Worksop prices do not differ from the general average, while Wormleighton gives a monthly average, which is extremely exhaustive and suggestive, the average for the agricultural year being 24*s.* 2*d.* Wheat meal is also given at Oxford and Theydon. Barley and bigg seed are also found, the latter nearly as dear as the former. Malt prices are also low, the average being 11*s.* 7¼*d.* at Cambridge, 15*s.* 8*d.* at Eton, 13*s.* 8½*d.* at Oxford, the market rising towards the end of the year, and being dear at Worksop only. Oats are cheap at all the localities which give information, and oatmeal is at its normal price. Rye is found at Worksop, where it is cheaper than malt; beans at Oxford; peas at Cambridge, Worksop, and Wormleighton, at which last white and probably garden peas are recorded. This is another cheap year.

1603–4. We are still in a series of cheap or abundant years, i.e. relatively to later experience, though these low prices would have been abnormally high a generation before. The Cambridge wheat rents hardly vary through the year. Those at S. John's are at 22*s.* 8*d.*, those at King's 22*s.* 11¼*d.* At Eton they are as usual higher, 31*s.* 8*d.*, while Oxford is midway between the former two, the New College purchases being for once higher than the corn rents. The prices at Theydon in Essex and Wormleighton in Northants are almost precisely the same. There is also copious evidence of the price of

flour. Barley and barley-meal, both cheap, are found at Theydon; bigg as usual at Worksop. Malt is very cheap at Cambridge, Eton, and Oxford, the price rising slightly at the latter place late in the year. Oats, for which considerable evidence is given, are also cheap. Groats and oatmeal are found at Wormleighton, the former being dearer, though in a different month than the latter. Rye, only found in one place, is at a relative price to wheat. There is one entry of beans at Oxford; several of peas at Cambridge, and at Worksop. The price of both is low.

1604–5. The evidence is not so copious, but prices have risen; not indeed considerably, but notably. Wheat is dearest in all localities about Lady Day. It is at 27*s.* 8*d.* on an average at S. John's, at 25*s.* 2½*d.* at King's College. It is at 34*s.* 4*d.* at Eton, at 30*s.* 1*d.* in the Oxford rents, the New College purchases failing this year, and the prices therefore being always at the maximum. The general consumer's price is probably that of Wormleighton, an average of 26*s.* 0½*d.*, some of this being also seed. One entry only of barley has been found, this being seed. The price of malt corresponds to that of wheat, but rises markedly at the termination of the agricultural year. Oats are almost uniformly cheap, and oatmeal is at its natural price, as are also beans and peas. The entries for this year supply me with other evidence of the local measure at Gawthorp. Here six mets make a quarter, two pecks a met, and four aighendoles a peck. The sieve of oats is two quarters, and is identical with the older crannock.

1605–6. The average of the wheat rents in King's and S. John's Colleges is in this year 23*s.* 8¼*d.*, a slight decrease on the last year. It is cheapest about Lady Day, and rises at Lammas to the price at which it stood at Michaelmas. At Eton wheat is 32*s.* 4*d.* At Oxford it is 27*s.* 1*d.*, the price being highest in the second All Souls rent. Wheat-flour is at corresponding prices. I have prices of barley, one in Lancashire, the other in Essex. It is a little, but only a little dearer in the former than in the latter. Malt is 15*s.* 7¼*d.* at Cambridge, 21*s.* 8*d.* at Eton, 18*s.* 5¾*d.* at Oxford, and is at the natural comparative price. Oats are found at Cambridge and in Essex. Oatmeal is cheap. Beans as usual at Oxford; peas at Cambridge. The year is a cheap one.

1606–7. The Cambridge price of wheat is 26*s.* 11¼*d.*, the whole of the entries being corn rents. There is very little change through the year, though prices are a little higher at Lady Day. At Eton it is 38*s.*, where the same exaltation at Lady Day is marked. The account of the New College purchases for this year is preserved, and the price

is quite up to the highest corn rents. The average from Oxford is 33*s.* 5¼*d.* The price of wheat-flour, 42*s.* 7½*d.*, follows the rise of the year, which is slight. I have found only one price of barley, which is low. Malt is cheaper than it was the year before (15*s.* 0½*d.* at Cambridge, 18*s.* 4*d.* at Eton, 17*s.* 7½*d.* at Oxford) in all these important localities. Oats are also cheaper, in every locality except Cambridge. Beans at Oxford, and peas at Cambridge, are very much cheaper. The rise in wheat over the previous year, 4*s.* 1*d.* the quarter, while other kinds of grain are cheaper, suggests that the autumn sowings had not had as satisfactory results as the spring sowings had.

1607–8. The price of wheat rises almost continuously from Michaelmas to Lammas. The later prices of the King's College rents are higher than anything recorded at S. John's. Taken together, the Cambridge corn rents show an average of 34*s.* 8*d.* This year is the first of those for which the accounts of the S. John's College bakehouse have been preserved. From this year these accounts are regular. The College bought 272 qrs. 6 bshs. 3 pks., at a cost of £401 2*s.* 5*d.*, and the average is 33*s.* 0¼*d.* Now these purchases represent ordinary consumption prices, supplies being obtained as convenience and cheapness dictated in distant markets as well as at home, and therefore being valuable correctives to maximum prices. They are it will be seen only a little lower than the maxima, and I conclude that the quality of the crop was generally uniform, and fairly good. Of course the rise at the end of the period is due to anticipations as to the coming harvest. At Eton the price is 39*s.* 4*d.*, at Oxford it is 39*s.* 5½*d.*, the average being heightened by the Midsummer price at New College and the second All Souls rent, and the cause being that given above. The price of barley is found at Theydon Gernon alone, and the rate in March seems to imply that good seed was dear. Malt, which gradually rises as wheat does, is 18*s.* 6¼*d.* at Cambridge, 19*s.* 8*d.* at Eton, 20*s.* 3½*d.* at Oxford, 18*s.* 10½*d.* at Theydon. It will be seen that malt rises as wheat does, though not so considerably. Oats are not very dear, but then stable purchases were made in the winter. Beans and peas are cheap. Had it not been for the anticipations of the next harvest, this year would have been like that which preceded it.

1608–9. The harvest is a decided failure. At first prices are very high, but they slowly decline through the year. The rate at the two Colleges is 44*s.* 2*d.* The wheat bought for the bakehouse is 253 qrs. 7 bshs. 2 pks., at a cost of £507 17*s.*, the average being 40*s.* The average at Eton is 62*s.*, at Oxford 55*s.* 0½*d.*, the second All Souls

price lowering the average. Flour follows the price. The price of barley at Theydon Gernon is not high. The price of malt is a great deal higher, but prices are generally pretty uniform throughout the year; 23*s.* 2*d.* at Cambridge, 28*s.* 4*d.* at Eton, 27*s.* 7*d.* at Oxford, 26*s.* 11¼*d.* at Theydon Gernon, where, by the way, prices are a great deal higher after May than before. Oats are not so much raised in price, the entries being from Cambridge, London, and Theydon, in which latter place the later prices of the year are again higher. Beans are found at London and Oxford; peas at Cambridge and Theydon Gernon. On reviewing the facts and the dates, I conclude that the scarcity of this year was mainly in the wheat crop, and taking into account the anticipations of the previous year, that the rise of prices was due to causes which affected the autumn sowings.

1609–10. The price of wheat, as indicated by the Cambridge corn rents, keeps pretty steady till the summer, when it declines. The average is 29*s.* 9*d.* The bakehouse purchases are 254 qrs. 7 bshs. 1 pk., the cost being £338 4*s.* 11*d.*, or at 26*s.* 6¾*d.* The Eton rate is 40*s.* 4*d.* The Oxford is 35*s.* 2*d.*, the latest returns in this market showing a distinct rise. Barley is rather dear, but most of the entries are from Essex, where the crop seems to have been inferior. Malt is 16*s.* 10¾*d.* at Cambridge, 24*s.* 8*d.* at Eton, 19*s.* 1¾*d.* at Oxford. But at Theydon Gernon, with dated entries from January to June, it is 28*s.* 7¾*d.* Certain entries of malt at Gawthorp by the load I have omitted, as I am not certain of the measure, though I believe it to be the quarter. The high price at Theydon is, I conclude, due to local scarcity. Oats are entered numerously, at Cambridge 10*s.* 9*d.*, and at Theydon 14*s.* 4*d.* The entries from Biggin, a King's College estate, which begin with this year, and are continued pretty regularly, are, I believe, of a corn rent. Beans and peas are at corresponding prices.

1610–1. Prices for this year are, for the averages of the time, moderate and uniform throughout. The Cambridge rents are at an average of 32*s.* 7¼*d.* The bakehouse purchases are 304 qrs. 4 bshs. 0½ pk., the cost being £430 6*s.* 9½*d.*, or 28*s.* 3*d.* a quarter. The Eton average is 34*s.*, that of Oxford 33*s.* 4*d.*, and flour is at corresponding prices. Barley at Theydon is cheap. Malt rises in the summer, and is at an average of 16*s.* 10¾*d.* at Cambridge, 18*s.* at Eton, 17*s.* 5½*d.* at Oxford, 19*s.* 3½*d.* at Theydon. Oats and oatmeal are cheap. Beans and peas are at natural rates. The year, as prices are certainly rising, is decidedly a good average.

1611–2. Prices are rising. The Cambridge corn rents of the two

Colleges give an average of 36*s.* 4¾*d.*, wheat being slightly lower in the spring and early summer, and rising, in anticipation of the coming harvest or of a general exaltation of prices, in the latest entries. The bakehouse purchases are 302 qrs. 4 bshs. 3½ pks., and cost £496 19*s.* 4½*d.*, an average of 32*s.* 10¼*d.* The Eton average is 41*s.*; the Oxford average is 38*s.* 7½*d.*, the New College purchases being quite up to the average. Wheat-flour is at proportionate prices. Barley is found at Oxford and Theydon, and rises in price at the latter place. The average price of malt at Cambridge is 21*s.* 6¼*d.*, at Eton 24*s.*, at Oxford 21*s.* 11*d.*, and at Theydon, where purchases are made nearly every month throughout the year, 18*s.* 5¼*d.* These prices represent, I think, a uniform year. Oats are found at Cambridge only, and the price is very high, oats being generally cheap at this locality. Peas are found at Cambridge, beans at Gawthorp, Oxford, and Theydon, being again cheap at the last-named place, where there is also an entry of tares, i.e. vetches. I infer that, if the crop was rather short, the quality was good.

1612–3. Prices are still rising. The Cambridge corn rents show an average of 38*s.* 7*d.*, the rate being highest in the winter. The bakehouse purchases at S. John's, now distributed into thirteen lunar months, give an average of 36*s.* 6¼*d.* The Eton average is 46*s.* 4*d.*, and that at Oxford 42*s.* 7½*d.*, the second All Souls price being high, and indicating a progressive alarm about the next year's crop. The quality too appears to be indicated by the excessive price of flour in the second All Souls entry. Barley is found at Theydon, and is not very dear. Malt is 22*s.* 2¾*d.* at Cambridge, 26*s.* at Eton, 26*s.* 2¼*d.* at Oxford, where the price declines as the year advances, and 22*s.* 9¼*d.* at Theydon. These prices, which are very uniform, correspond to the price of wheat. Oats are found at Biggin, Cambridge, and Gawthorp, and are cheaper; oatmeal at the last-named place being cheaper than wheat. Beans are found at Oxford and are dear, peas at Biggin, Cambridge, and Theydon, where they are comparatively cheap. There is an entry at Gawthorp by the load, but as I am not sure of the quantity, I have not included it in the materials of the average.

1613–4. Prices are rising still higher. The Cambridge average is 42*s.* 2¼*d.*, the highest prices being towards the end of the year. S. John's purchases 316 qrs. 3 bshs. 3 pks., at a cost of £576 3*s.* 0½*d.*, and at an average of 36*s.* 6¼*d.*, that is at the rate of last year. The Eton average is 47*s.* 8*d.*, the Oxford 47*s.* 0½*d.*, there being no New College purchases this year. I conclude, from the contrast between the maximum market and the bakehouse prices, that there was a con-

siderable difference in the quality of the grain this year. Very numerous entries of flour at Theydon represent purchases at not much more than the Cambridge average, and less than corn prices elsewhere. Here we may conclude that the old custom of purchasing flour was retained. Barley is found at Theydon in December and July at high rates. Malt is relatively not so dear as wheat. It is 24*s.* 9¼*d.* at Cambridge, 26*s.* at Eton, 24*s.* 3¾*d.* at Oxford, and 26*s.* 8*d.* all the year through at Theydon. Oats have been found at Biggin at 16*s.*, Cambridge, entries made nearly all the year through, at 14*s.* 10*d.*, and Theydon at 12*s.* 1¼*d.* The price of this kind of grain declines as the year goes on. Beans have not been found, but peas have in three places, the price not being other than natural.

1614–5. The price of grain is falling. The wheat rents at Cambridge are at an average of 34*s.* 1*d.*, while the bakehouse purchases, 325 qrs. 7 bshs. 3 pks. in amount, and £470 15*s.* 10*d.* in cost, are at 28*s.* 10¾*d.* During this and the next year a farm account of Cranfield, afterwards finance minister to James, and Earl of Middlesex, has been discovered. The estate was managed by Cranfield's father. The entries, from March to September, are low, at an average of 29*s.* 0¼*d.* The price at Eton, 37*s.* 4*d.*, is unchanged through the year. The Oxford average is 34*s.* 5¼*d.* The price at Theydon is very high, 43*s.* 3½*d.*, and seems to point to a local scarcity. Barley is also dear at Theydon, the only locality which supplies a price. Malt is 24*s.* 3¾*d.* at Cambridge, 26*s.* at Eton, 23*s.* at Oxford, these being maximum prices. It is dearer on Cranfield's estate, 23*s.* 5*d.*, and at Theydon, 27*s.* 9¼*d.*, and these facts suggest again a local scarcity. Oats are cheap at Theydon, 13*s.* 4*d.*, and Cambridge, 13*s.* 10¾*d.*, dearer on Cranfield's land, 15*s.* 8¼*d.* The first and the last supply a price of oatmeal, the comparatively low price of this suggesting that the oat crop was good. Beans are found at Oxford, and at ordinary prices; peas more plentifully, the average at Cambridge, where entries are numerous, being 16*s.* 3¾*d.*

1615–6. The character of this year is almost identical with that of the previous year. The Cambridge wheat rent average is 36*s.* 3½*d.*, that of Eton 40*s.* 8*d.*, that of Oxford 39*s.* 2*d.* The bakehouse purchases at S. John's amount in quantity to 286 qrs. 3 bshs. 7 pks., and the cost is £465 3*s.* 9*d.*, an average of 32*s.* 5½*d.* But the Cranfield sales are at 31*s.* 2¾*d.*, those of Theydon at 33*s.* 8¼*d.* The entries contain one from Harting, the seat of the ancient family of Caryl, where the price in the winter is only 26*s.* 8*d.*, this place lying near the Hampshire side of Sussex. Barley found at Theydon is a little cheaper than it was in the last year, while malt is rather dearer,

24*s.* 1*d.* at Cambridge, 27*s.* 4*d.* at Eton, 24*s.* at Oxford, these being malt rents; at Cranfield's estate it is 23*s.* 8*d.*, at Theydon Gernon, entries being given for eight months between November and September, it is 26*s.* 6¾*d.* Oats are much dearer, 22*s.* 8*d.* at Biggin, and 17*s.* 10½*d.* at Cambridge, but only 12*s.* 1*d.* at Theydon. The price of oatmeal at Harling in Norfolk is high, and suggests a poor crop of this grain. Rye is found on Cranfield's estate at a proportionate price. Beans, found in two places, vary considerably in value; and peas are a good deal dearer than beans, being at 25*s.* 1*d.* in Cambridge, 40*s.* at Harling, and 18*s.* 1*d.* at Theydon. Looking at the general range of price this year, I should conclude that the season was an over-dry one.

1616–7. A considerable rise takes place in prices. The average Cambridge price in wheat rents is 40*s.* 3½*d.*, at Eton 45*s.*, at Oxford 41*s.* 6¼*d.*, the rate stiffening as the year advances. The bakehouse purchases amount to 285 qrs. 7 bshs., and cost £538 18*s.* 6*d.*, an average of 37*s.* 4½*d.* The Theydon rate is high, 46*s.*, the purchases being effected late in the year, when the next harvest was being anticipated. Barley and malt are by no means so dear, are indeed lower, the latter considerably lower than in the foregoing year. At Cambridge, malt is 18*s.* 8*d.*, at Eton 24*s.*, at Oxford 19*s.* 4*d.* At Theydon Gernon (which also gives a copious return of the price of barley-meal) the price is 21*s.* 4*d.*, the rate being uniform from February to September. Oats are very much cheaper, 12*s.* at Biggin, 10*s.* 5½*d* at Cambridge, 12*s.* 8*d.* at Oxford, and 19*s.* at Theydon; where oatmeal is also dear, though it is cheap in Lancashire. Beans are bought abundantly, at Cambridge 16*s.* 9½*d.*, and Oxford 16*s.* 5¼*d.* Peas are cheap at Biggin, excessively dear at Theydon, so dear as to be suspicious.

1617–8. There is no material difference between the rate of the Cambridge rents this year as compared with the year before. The price is 40*s.* 1½*d.*, mainly owing to a fall at King's College in the later part of the summer. Elsewhere however prices are higher: the Eton rent is at 49*s.*, the Oxford is at 43*s.* 6½*d.*, the amount being lowered by later entries. If we turn to other evidence than that of corn rents, we see that the bakehouse purchases, in amount 267 qrs. 6 bshs., cost £469 4*s.* 4*d.*, or 34*s.* 7¾*d.* a quarter. The New College purchases are at 44*s.*, those of Theydon Gernon at 39*s.* 11*d.* But there is a purchase at Bath in July at 53*s.* 4*d.*, and another at Gawthorp at 48*s.* There remains a series of monthly averages taken from the Oxford University archives, and representing the assise of bread during each month of the year, the University having had the privilege of fixing

the price of bread and beer according to the price of wheat and malt. This gives an average of 41*s.*, and is of all the corn bought and sold in the market. I have been constrained to omit from my averages the Halifax load; an unknown quantity. The price of wheat-flour is given at New College, Oxford. Barley is found at Cambridge, Oxford, and Theydon, the second of these being an average taken every two months. At the last two it is 17*s.* 5½*d.*, and 20*s.* 1*d.* The price is low relatively, as is also that of malt, which is 18*s.* 5¼*d.* at Cambridge, 20*s.* at Eton, 19*s.* 4*d.* at Oxford. The Oxford averages of the market give 18*s.* 7*d.*, and the Theydon entries 21*s.* 0½*d.* Oats are everywhere cheap, 10*s.* 10¾*d.* at Cambridge, 12*s.* 2¼*d.* at Oxford, and 11*s.* 4*d.* at Theydon. Oatmeal at Oxford and Theydon is exactly at the same price, and the oat crop must have been abundant and of good quality. Peas and beans are both cheap, and must have been a good crop. The comparative dearness of wheat must I think have been due to damage done in winter and early spring to the autumn sowings.

1618–9. Wheat falls steadily in price from Michaelmas to Midsummer in all localities. At Cambridge the average wheat rent is 29*s.* 6½*d.*, in Eton 40*s.*, in Oxford 35*s.* 8¾*d.* The bakehouse purchases, in amount 317 qrs. 6 bshs., in cost £402 1*s.* 6½*d.*, are at 25*s.* 3¾*d.* a quarter; those at Theydon are at 32*s.* 11*d.*, while the market averages at Oxford are at 32*s.* 6½*d.*, these entries illustrating clearly how the maximum prices are to be contrasted with the ordinary cost of the article. Barley is at 16*s.* 9¼*d.* at Oxford, 16*s.* 2¼*d.* at Theydon. The malt rent at Cambridge is 16*s.* 3¼*d.*, at Eton 19*s.* 8*d.*, at Oxford 19*s.* 4*d.*, the assise average being 19*s.* 0½*d.*, while at Theydon it is 19*s.* 4*d.* Oats are rather dearer, not notably at Cambridge, but at Reading and Theydon. Beans and peas are cheap, the former at 15*s.* 2½*d.*, the latter at 14*s.* 11*d.*, the price at Cambridge being 14*s.* 2¾*d.*, at Theydon 15*s.* 7¼*d.* Oatmeal is at a proportionate price.

1619–20. This and the following are the cheapest years since 1601, and prices are never so low again in this century, except in a doubtful case to which I shall refer in due course. The King's College prices are wanting, this being the only year in the whole 120 for which the account is lost. But prices are everywhere low except in Lancashire. The corn rent at Cambridge is 21*s.* 11¼*d.*, that at Eton is 32*s.*, at Oxford 34*s.* 5¼*d.* on an average. The S. John's purchases amount to 374 qrs. 6 bshs., and cost £365 3*s.* 10*d.*, or at 19*s.* 5¾*d.* the quarter. The New College purchases are at 31*s.* The Oxford monthly averages give a result of 26*s.* 5¾*d.*, and Theydon Gernon a price of 20*s.* The Gawthorp accounts give a high

price of wheat ranging from 48*s.* to 36*s.*, and name considerable sales, but after consideration, I concluded that it was better to omit these from the average. The average price of barley in the Oxford market is 15*s.* 2*d.*, at Theydon 14*s.* 9*d.*, while malt is 15*s.* 4*d.* at Cambridge, 19*s.* 4*d.* at Eton, and 17*s.* 11*d.* at Oxford in the rent. The average at Oxford market is 17*s.* 2¼*d.*, and at Theydon, where dated returns are given, 17*s.* 4*d.* The Cambridge and Oxford Colleges fail to supply me with the prices of oats, but the Oxford market averages are given from February to September, at 13*s.* 2¼*d.*, and Theydon has dated purchases from December to May at an unchanged price of 12*s.* Oatmeal is cheap. Beans and peas are rather above the natural average, Oxford and the market giving the former at 17*s.* 11½*d.*, and the latter, from Oxford market and Theydon, at an average of 18*s.* 5½*d.*, the price being nearly the same at each place. The year was abundant.

1620–1. Prices are slightly lower than last year. At Cambridge the average of the corn rents is 21*s.* 5*d.*, that of the bakehouse purchases rather higher, 21*s.* 7¼*d.*, the quantity being 356 qrs. 7 bshs., the price £385 1*s.* 3*d.* At Eton the average is 29*s.*, at Oxford 27*s.* for the corn rents, 23*s.* 3*d.* for the monthly averages of the market. But the Oxford prices are exalted in some degree towards the end of the year by a considerable rise which takes place in the autumn, as may be seen in the second All Souls entry, and in the last two of the Oxford assise. The single entry at Theydon I have not included in my averages. There must be some mistake in the year, or most likely in the figures, in the original, for such a price is impossible in the April of this agricultural year, since in all other localities, some of which are near enough to Theydon, April is the cheapest time of the year. Barley is cheap, and malt is lower this year than it was in the previous year, 11*s.* 10½*d.* At Eton, malt is 17*s.* 4*d.* The Oxford malt rent is on an average, 14*s.* 2½*d.*, the market average 14*s.* 1*d.*, while the Theydon entries are at 14*s.* 3½*d.* Oats again are very cheap, the monthly average of Oxford market being 11*s.* 1¾*d.*, and this grain being even cheaper at Biggin, Cambridge, and Theydon. Oatmeal is cheap. Beans are cheap at Cambridge, 14*s.* 5½*d.*, rather dearer at Theydon and Oxford, where the purchases are made in winter, and fairly cheap on an average in Oxford market, where however winter prices are as high or nearly as high as the rate paid at Corpus Christi College, Oxford, and at Theydon.

1621–2. Wheat is much dearer, the price rising rapidly towards the summer, though the rise is less discernible in Cambridge and

Eton than in Oxford. The Cambridge rents are at 41*s.* 4*d.*, the purchases at St. John's, amounting to 314 qrs. 1 bsh., cost £575 15*s.* 11*d.*, or 38*s.* 0¾*d.* a quarter. At Eton the average is 41*s.* 4*d.* The New College purchases show exactly how the price was elevated, being 36*s.* in the first, 62*s.* in the fourth quarter, with an average of 46*s.* 6*d.* The Oxford rents and assises give an average of 45*s.* 1*d.*; the market averages of 43*s.* 0½*d.* The price at Theydon in March is 41*s.* 4*d.*; at Wormleighton, between February and July, 42*s.* 6*d.* A considerable amount is purchased by Shuttleworth in Lancashire at 30*s.*, and must have been obtained early in the autumn. It is clear that the general quality was not bad, but that the crop was scanty. The prices of early autumn are undoubtedly exalted by the anticipation of what the coming harvest would be. Barley is, to judge from the returns, higher in price than malt, which generally implies that good seed was scarce. The average at Oxford is 20*s.* 0¾*d.* Malt is 17*s.* 8½*d.* in Cambridge, 20*s.* in Eton, 20*s.* 1*d.* in Oxford rents. But the market average, which includes the later months of the agricultural year, is higher, 21*s.* 1*d.* The Theydon rate is the highest of all, 23*s.* 2½*d.*, but the record extends from January to September. Oats are fully represented, and are not dear in the early part of the year. There is a very considerable return from Wormleighton, where the price rises from March to May. The crop of oats was apparently good, as oatmeal is disproportionately cheap. Beans are given for eight months of the year from the Oxford market, and are not on the whole dear, while the price of peas is considerably higher, 19*s.* 8½*d.* at Cambridge and 20*s.* 5½*d.* at Theydon.

1622–3. The price of wheat is much higher, and remains high throughout the year. At Cambridge it is highest at Candlemas, Midsummer, and Lammas, but is lower at Lady Day. The average of the Cambridge corn rents is 46*s.* 4¼*d.* The bakehouse purchases amount to 205 qrs. 7 bshs., and cost £419 17*s.* 3*d.*, or 40*s.* 9½*d.* the quarter. The Eton rents are at 64*s.* 8*d.*, the Lady Day being a good deal less than the Michaelmas price. The New College purchases give an average of 56*s.* 10*d.*, while the Oxford rents are at 57*s.* 8½*d.*, and the market averages 54*s.* 7*d.*, the highest prices being in January and June. Towards the end of the year, the price falls markedly. The season was I conclude wet, and the crop poor in quantity and quality. Barley is considerably dearer, and malt also rises. At Cambridge the average of the malt rent is 28*s.* 3*d.*, at Eton 29*s.* 10*d.*, at Oxford 27*s.* 2*d.*, while the market averages are 28*s.* 4*d.*, including here the later part of the year. The price at Theydon is the highest of all,

30*s.* 7½*d.* These prices strengthen my inference that the season was wet. But oats are cheap and must have been a good crop, for the price of oatmeal is low. Rye is found this year at 34*s.*, a proportional price. Peas are almost unchanged. Beans are rather dearer. The price of wheat was higher than it had been since 1608.

1623–4. The price of wheat is falling throughout the year. The Cambridge corn rents are at an average of 37*s.* 0¼*d.*, the dearest time of the year being about Lady Day. The bakehouse purchases amount to 240 qrs. 2 bshs. 2 pks., and cost £379 10*s.* 5*d.*, or an average of 35*s.* 9*d.* The Eton average is 44*s.* 8*d.* At Oxford, prices are rather higher as the coming harvest is reached. The New College purchases are at an average of 42*s.*, the highest, 45*s.* 4*d.*, being in the last quarter. The Oxford rents and assises are at 40*s.* 6¼*d.*, and the market averages are at 38*s.* 6*d.* There are some entries from Theydon, all in October, when the price was low; and one of July from Elmswell, when the price was a little below the average. Barley has also fallen in price, the Oxford average being 20*s.* 9¼*d.* Malt is 22*s.* 4½*d.* at Cambridge, 27*s.* 4*d.* at Eton, 24*s.* in the Oxford rents, and 23*s.* 1¼*d.* at the average of the Oxford market; but it declines in price as the year goes on. There is but little information as to the price of oats, but oatmeal is steadily at one price through the year. Rye is found at one locality. Beans and peas are at nearly the same price.

1624–5. Wheat rises decidedly in price, though not greatly. The average of the Cambridge rents is 40*s.* 3¼*d.* The bakehouse purchases amount to 224 qrs. 4 bshs. 3 pks., and cost £419 8*s.* 4*d.*, or an average of 37*s.* 4½*d.* The Eton rents are a great deal higher, the average being 52*s.* In Oxford, as in Cambridge, the highest prices are those from Christmas till Midsummer, the average of the New College purchases being 47*s.* The Oxford rents are at 48*s.* 10¼*d.*, while the monthly averages of the market give a year's price of 47*s.* 0½*d.* I conclude therefore that the quantity of the harvest was defective, the quality good. There is an entry of ship's biscuit from Rochester at 18*s.* the cwt. Barley in November is cheap at Elmswell. The Oxford average is 18*s.* 10¼*d.* Malt rents at Cambridge give an average of 19*s.* 8*d.*, at Eton of 22*s.*, at Oxford of 19*s.* 2*d.*, while the average of the Oxford market is 18*s.* 10½*d.* I infer from these figures, which show on the whole a cheap year for malt, that the barley harvest was a good one. I have only one entry of oats, at Eton, where all kinds of grain are dear, and the price is high. But the price of oatmeal at Oxford, 40*s.* 1*d.*, suggests that the quality was good and the general price moderate. There is an entry of a large number of hogsheads of oat-

meal for the navy at Rochester, at 50*s.* The quantity is probably a quarter, but I have not taken it in the average. Beans are dearer than peas, the latter being at Cambridge 16*s.* 5¾*d.*

1625–6. Wheat is rather dearer this year, being at an average of 48*s.* 3¾*d.* In the Cambridge rents it is at 46*s.* 6½*d.*, the highest price being noted in August. The bakehouse purchases amount to 198 qrs. 4 bshs., and cost £454 11*s.* 4*d.*, or 45*s.* 4*d.* the quarter, the College having secured its stock before the August rise, which must have been due to temporary alarm as to the coming harvest, this alarm not being verified by results, and being probably local. The Eton average, 52*s.*, is the same as last year. The New College purchases are a little lower, 46*s.* The Oxford corn rents give an average of 48*s.* 4*d.*, the market series one of 46*s.* 7*d.* The wheat harvest must have closely resembled that of the year before, the general rise being due to the Cambridge returns. Barley is found at Oxford only, the Theydon accounts ceasing with this year. Here the average is a good deal higher, 25*s.* 2*d.* The malt rents at Cambridge are at 26*s.* 8½*d.*, at Eton 25*s.* 4*d.* The Oxford malt rents are at 25*s.* 2*d.*, the market averages at 25*s.* 4¾*d.* Here again malt is dearer at Cambridge than it is in any other locality, though prices are on the whole very level. Oats are dear at Biggin, and not cheap in spring at Oxford. But oatmeal is at a moderate price. Both beans and peas are rather dear, the former 29*s.* 4*d.* at Oxford, the latter 21*s.* 4*d.* at Cambridge.

1626–7. Prices fall considerably, though they are fairly even at Cambridge throughout the year. The rent averages are 30*s.* 6*d.* The bakehouse purchases, 241 qrs. 1 bsh. 2 pks. in quantity, are made at lower rates, for the whole costs £318 15*s.* 11*d.*, or 26*s.* 4½*d.* the quarter. The Eton average is 41*s.* 8*d.* The New College purchases are made at an average of 36*s.* 4*d.*, a higher rate than the Oxford corn rents come to, this being 34*s.* 9½*d.*, while the market averages are at 34*s.* 7*d.* The wheat crop then must have been plentiful, but I think of generally inferior quality, at least in Cambridge. I have omitted one of the Mendham entries, which is described as 'coarse.' In the second entry from Cambridge under Christmas, 19*s.* should be read 32*s.* Barley at Mendham is very cheap, as barley in Norfolk generally was. It is a good deal dearer at Oxford, where it is 18*s.* 1¼*d.* Malt is 18*s.* 4*d.* at Cambridge, 23*s.* 8*d.* at Eton, 21*s.* in the Oxford rents, and 19*s.* 10½*d.* in the market averages, the price declining through the year. Oats are nearly everywhere cheap, and oatmeal, low in price, is unchanged through the year. Rye is found in a series of prices from Norfolk, and is cheap. Beans and peas are very cheap.

1627–8. Prices are still lower, and continue to fall till the end of the year, when they rise. The Cambridge wheat rent gives an average of 22*s.* 3¾*d.*, while 240 qrs. 6 bshs. bought for the bakehouse, at a cost of £241 16*s.* 5½*d.*, is at 20*s.* 1*d.* The Eton corn rent is at 30*s.* 4*d.* At Oxford, the New College purchases give an average of 28*s.* 8*d.*, wheat-flour following this price exactly. The wheat rents at Oxford market are at 29*s.*, and the monthly averages of the sales give a result for the year of 25*s.* 4*d.* The year was no doubt one of great abundance and good quality. Barley is also very cheap. In Mendham (Norfolk) the price is only 9*s.* 4*d.* In the Oxford market, the average for the year is only 13*s.* 2½*d.* At Elmswell (Suffolk) three sacks are sold, and I have, with some misgiving, taken the sack at half the quarter, as it ordinarily is. As for malt, the Cambridge rents give an average of 14*s.* 1*d.*, Eton one of 19*s.*, Oxford one of 15*s.*, while the average derived from the market sales throughout the year is rather higher, 15*s.* 3½*d.* Barley and malt are exceedingly cheap. Oats are also purchased at very low prices, and oatmeal remains for the whole year at last year's price. Considerable quantities of rye are sold at Mendham, the average of this grain being 13*s.* 5*d.* Peas are at an average of 14*s.* 11*d.* at Cambridge. Beans are at 18*s.* 8*d.* in Oxford. This place gives a quotation of pulse, by which I do not doubt is meant peas. The year is undoubtedly one of general fertility and cheapness, and the like of it does not recur for twenty-six years.

1628–9. Prices gradually rise, though not to any considerable amount, the highest rates being Lady Day at Cambridge and the later summer elsewhere. The average Cambridge rent is 30*s.* 11¾*d.* The bakehouse purchases amount to 234 qrs. 2 bshs., and cost £349 4*s.* 7*d.*, an average of 29*s.* 9¾*d.* The Eton average is 34*s.* The New College purchases at Oxford are at 36*s.* 4*d.*, the price being considerably raised in the last quarter. The corn rents and assise prices are at 33*s.* 9¼*d.*, this comparatively low average being due to the cheap rates in November. The market average is 33*s.* 2*d.* Flour at Oxford closely corresponds with wheat prices. The price of barley rises regularly at Oxford from September to August. Malt is dearer at Cambridge than anywhere else, for it stands at an average of 19*s.* 4¾*d.*, while it is at 19*s.* at Eton, 18*s.* 4*d.* in the Oxford malt rents, and 17*s.* 6¼*d.* on the average of the whole year in Oxford market. Oats are not very dear, the average being heightened by some summer purchases at Elmswell; and oatmeal, which begins at the prices of the previous two years, rises considerably at the end of this. Beans are dear, and peas, cheap at first, rise at the end of the year as other kinds of grain do.

1629–30. Prices begin at an average amount and steadily rise up to the end of the agricultural year, wheat being 11*s.* a quarter dearer in August than it was in September. The rise however is entirely due to anticipations of the coming harvest, anticipations which were fully realised. This fact is illustrated by all the localities. The average price of the Cambridge wheat rents is 37*s.* The bakehouse purchases, which are not made later than May, and therefore escape the rise, amount to 152 qrs. 7 bshs., and cost £247 1*s.* 8*d.*, i. e. 32*s.* 7¾*d.* a quarter. There is only a penny difference between the Michaelmas and Lady Day price at Eton, and the same fact may be noted at Cambridge and Oxford. The New College purchases scarcely vary for the first three quarters, and then rise by nearly 19*s.*, the general average being 47*s.* 2*d.* The Oxford corn rents, exalted by the second All Souls entry and the assises of June and September, are at 47*s.* 2½*d.*, while market averages of the twelve-months give 44*s.* 8¾*d.*, the course of the rise being very marked here. Barley and malt are similarly affected, but by no means to the same extent. The average of malt at Cambridge is 22*s.* 9¼*d.*, at Eton 28*s.* 10*d.*, at Oxford 27*s.* 4*d.*, while the market averages are 25*s.* 5½*d.* Oats are a good deal dearer, except at Elmswell, where the purchases are made in the late autumn; and oatmeal at Oxford, purchased every quarter, sustains a rise. Beans at Oxford are a little dearer, peas a great deal dearer. I should add that wheat-flour follows the rise in the price of wheat, being nearly always exhibited when the New College accounts for the year have been preserved.

1630–1. This was a year of famine, the price of wheat rising in one place to 80*s.* The character of the harvest had been anticipated, and the agricultural year begins everywhere with high and nearly identical prices, but little below, or rather over 60*s.* a quarter. The highest rates are from Christmas to Lady Day, while in the fourth quarter, i. e. from Midsummer to Michaelmas, there is a decline. Had it not been for the effect which this induces on the averages, the scarcity price would have been more marked. The Cambridge corn rents give on the whole year an average of 49*s.* 6¼*d.* The bakehouse purchases, 126 qrs. 2 bshs. in amount, cost £376 2*s.* 3*d.*, or 59*s.* 7*d.* the quarter. The highest prices are 72*s.* at Christmas according to the King's College register, and 70*s.* 8*d.* at Lady Day in that of S. John's. The bakehouse bought at 68*s.* about the same time. At Eton the Michaelmas rent was 66*s.*, the Lady Day 80*s.* An entry has been obtained from Lewes at 64*s.* in April. The average at which New College, Oxford, purchases for the whole year is 62*s.* 8*d.*, but for six months it buys at 72*s.* The wheat rent and assise returns give an average of

60*s.* 8½*d.*, but this is lowered by the second All Souls rate and the rapid fall in August and September. The most instructive register is the monthly average of the Oxford market, where the maximum is in April, with 73*s.* 3*d.*, the annual average being 61*s.* 1¾*d.* Barley and malt are not, as might be expected from the known laws of prices, so much elevated. But barley is 36*s.* 2½*d.* at Oxford, 40*s.* in April at Lewes. Malt rents are at 35*s.* 2¼*d.* in Cambridge, 35*s.* 4*d.* in Eton, 34*s.* 5*d.* in the Oxford malt rents, and 35*s.* 4*d.* in the market averages. Oats, on the other hand, as might be expected, are abnormally dear. They are at 24*s.* 5½*d.* on an average of the second and fourth quarters of the year in Cambridge. But the price of oatmeal obtained from the New College purchases only is not so elevated as might be expected. Beans have not been found, and peas, though dear, are not at famine prices. There can be no doubt that the cause of the calamity was a cold and wet summer.

1631–2. We have now entered on a series of dear years. For nine consecutive years the price of wheat does not fall below 40*s.* They will be followed by seven years during which more moderate prices are exhibited, and these by five years of famine, in which the price is never below 50*s.*, and for three consecutive years is above 60*s.* There is a similar succession of bad harvests, though the parallel is not exact, in the years 1799–1819 inclusive, in which the five years 1809–13 may be compared with the five years 1646–50, and these again with the four years 1314–7, 495 years, or eleven times forty-five years, intervening between the earliest and latest of these visitations. The average of the Cambridge wheat rents is 41*s.* 5½*d.* The lowest prices of the year are at Lady Day and Midsummer, but the prospects of the harvest become unsatisfactory, and the August prices are the highest of the year everywhere. The bakehouse at S. John's purchases 202 qrs. 6 bshs. at £405 16*s.* 11*d.*, or 40*s.* 2*d.* the quarter. The average price at Eton is 52*s.* There is also a curious record from Harting, the estate of the Caryls. Here a great deal of wheat is sold by the load (i. e. five quarters). It is cheap in October,—though I cannot guess what 'smut' wheat is,—rises up to May, falls through that month and June, begins to rise again, and in August reaches the highest price of the year, being nearly double that which is first registered. The average however, owing to these early sales, is only 38*s.* 1¼*d.* The Oxford wheat rents suggest the same inferences, and point to the same course of the market, as do also the averages of the Oxford market, the average of the former being 42*s.* 9*d.*, of the latter 40*s.* 9*d.* Barley and malt are not so high.

The average of the former at Oxford is 21*s.* 1*d.*, at Harting 19*s.* 3*d.* Malt rents at Cambridge are 24*s.* 4*d.*, at Eton 29*s.* 4*d.*, at Oxford 24*s.*, while the market averages at Oxford are 24*s.* 2½*d.* There is a series of malt prices at Harting from December to April at 20*s.* 7½*d.* Oats are at moderate and very uniform prices, 12*s.* 7¼*d.* at Cambridge, where purchases are made in all four quarters of the year; but oatmeal is excessively dear. Beans are dear at Harting and Oxford. Peas cheap at Cambridge, dear at Harting.

1632–3. The character of the harvest is very like that of 1631–2. The average of the Cambridge wheat rents is 42*s.* 5¾*d.* The bakehouse buys 224 qrs. 1 bsh. at a cost of £482 14*s.* 11½*d.*, making purchases every four weeks, with one exception at 43*s.* 0¾*d.* a quarter, for once paying prices above the market maxima of the rent days. At Eton the average is high, 57*s.* 4*d.* There is again a series of sales from Harting, the highest price being 47*s.* in July. The record informs us that on certain occasions the best sold at 5*s.* the bushel, the tail at 4*s.* 4*d.*, the worst at 4*s.* The average is 41*s.* 2*d.* The New College account is preserved for this year, and gives an average of 49*s.*, and 55*s.* 1*d.* for flour. The Oxford wheat rents are at 48*s.* 9*d.*, and the market averages at 45*s.* 6½*d.* The Oxford price of barley is 23*s.* 2*d.*, but two entries of seed at Harting give 20*s.* 6¼*d.* The Cambridge malt rents are at 22*s.* 2¾*d.*, the Eton 25*s.* 8*d.*, the Oxford malt rents 25*s.* The Oxford market average is 25*s.* 8*d.*, while some sold from Harting between November and May is at an average of 19*s.* 10½*d.* Oats are a little dearer, but oatmeal is much cheaper. Beans are cheap at Biggin, moderate at Harting, and full-priced at Oxford. Peas are on the whole cheap at Cambridge, the average being 16*s.* 2¾*d.*, but a larger price is given for seed peas at Harting. Vetches are found in this year, and house peas.

1633–4. The harvest of this year is very like that of the last. The Cambridge corn rents are at 41*s.* 5½*d.* The bakehouse buys 231 qrs. 1 bsh. for £452 15*s.* 4½*d.*, i.e. at 39*s.* 2*d.* a quarter. The Eton average is 58*s.* The Harting sales are at 42*s.* 9*d.* The Oxford rents are at 49*s.* 9¾*d.*, and the market averages at 47*s.* A series of entries at Mendham give an average of 39*s.* 7¾*d.* On the whole these prices are slightly easier. This year begins a short series of the accounts of D'Ewes. Barley and malt are dearer than last year. The Oxford average of the former is 28*s.* 6¼*d.* The malt rents at Cambridge are 28*s.* 7¼*d.*, at Eton 32*s.*, at Harting 25*s.* 10*d.* The Oxford malt rents are at 29*s.* 10*d.*, and the malt average 29*s.* 9½*d.* Three sales of D'Ewes give a low average, 22*s.* 8¼*d.* Oats are rather dearer,

but oatmeal at Mendham is very cheap. Rye is found in two places, and in each is at a proportionate rate to wheat. Beans are not found. Peas are rather dearer, 20*s.* 1¼*d.* at Cambridge; and two entries at Harting are so high that I am convinced that the second, like the first, is either of garden or of porridge peas.

1634–5. The price of wheat is a little lower. The Cambridge corn rents are at 42*s.* 9¾*d.*, while the bakehouse purchases, amounting to 165 qrs. 7 bshs., are bought for £324 16*s.* 6*d.*, or 39*s.* 2¾*d.* a quarter. D'Ewes furnishes a series from November to September with an average of 38*s.* 1¾*d.* The Eton average is 54*s.* The Oxford corn rents are at 44*s.* 5¾*d.*, the market averages at 41*s.* 8*d.*, both lower than last year. The general average is further depressed by a rather low price in January on Lady Leicester's lands. Barley and malt are cheaper everywhere. The former, found only in Oxford and Wigginton, is at 23*s.* 2¾*d.* in the former, at 24*s.* in the latter locality. The Cambridge malt rent is at 24*s.* 3¾*d.* D'Ewes' account gives the low average of 19*s.* 6*d.*, Eton one of 29*s.* 10*d.* Oxford malt rents are at 25*s.* 2*d.*, and the market averages at 25*s.* 2½*d.* Oats are cheap, but oatmeal has not been found. Rye is found in two localities, and is rather cheap, the price being nearly the same in both places. Peas are found in Cambridge only, at an average of 19*s.* 1¾*d.*

1635–6. Wheat is a little dearer in Eton and Oxford. The Cambridge corn rents are at 40*s.* 11¾*d.* The bakehouse purchases, 191 qrs. 1 bsh. in quantity, cost £363 2*s.* 3*d.*, or 38*s.* a quarter. D'Ewes gives an average between November and July of 37*s.* 2½*d.* The Eton rents are at 56*s.* 8*d.* The Oxford rents are at 48*s.* 1*d.*, and the market averages at 43*s.* 9*d.* There is very little variation in prices throughout the year. D'Ewes sells barley at 18*s.* 10*d.*; the Oxford average being 22*s.* 2¼*d.* The malt rents at Cambridge are 23*s.* 8*d.*, at Eton 28*s.*, at Oxford 24*s.* 8*d.*, the market averages being 23*s.* 8*d.* D'Ewes sells malt at 18*s.* 11½*d.* Oats are very dear at Cambridge, the average being 19*s.* 3*d.*: a few are found in D'Ewes at an average of 13*s.* 2¾*d.* Rye is found in D'Ewes, but the price, combs being printed for quarters, is very low. Beans are not found, and peas are very full-priced.

1636–7. Prices on the whole suffer little change. They are lower in Cambridge, and on the whole in Oxford. The wheat rents are 38*s.* 11*d.* at Cambridge. The bakehouse buys 161 qrs. 5 bshs. for £273 1*s.* 3½*d.*, at 33*s.* 5*d.*, buying judiciously. The Eton average is 55*s.*, the Oxford 47*s.* 8½*d.* There are some purchases by D'Ewes at 34*s.* 6*d.* But the New College account is very puzzling. For half the year it buys at 64*s.*; and I cannot but think that the crop was not

only below the average, but of indifferent quality, at any rate in the Midlands. The Oxford market average is 42*s.* 7¼*d.* Barley is rather dearer, 26*s.* 2*d.* at Oxford, 23*s.* 1¼*d.* on D'Ewes' estate. Malt is a good deal dearer. It is 30*s.* 6¾*d.* in the Cambridge rents, 30*s.* at Eton, 31*s.* 4*d.* at Oxford, where the price is raised by the second All Souls entry. But it is 28*s.* 0¾*d.* in the market averages. Oats are still rather dear, 15*s.* 6½*d.* at Cambridge, cheaper in the D'Ewes accounts, but dear at Eton and Stockton. Oatmeal is also high-priced. Rye, though cheap, is proportionate to D'Ewes' wheat. Peas are at full prices.

1637–8. Prices are again rather higher. The average of the Cambridge wheat rents is 42*s.* 10*d.* The bakehouse buys 143 qrs. 2 bshs. for £303 10*s.*, i. e. at 42*s.* 4½*d.* the quarter. The Eton average is 61*s.* The New College purchases are obtained at 40*s.* 6*d.*, the College having bargained better than usually, for the Oxford corn rents are at an average of 55*s.* 5½*d.*, the market averages being 51*s.* 10½*d.* A few entries from D'Ewes gave an average of 38*s.* The dearest time of the year is Lady Day, which is discernible in all the consecutive accounts, for at Cambridge the price is 56*s.*, and the bakehouse having incautiously purchased then, has to give 52*s.*, while at Eton the price is 60*s.*, and at Oxford 64*s.*, the market averages giving a price for March of 62*s.* 8*d.* Barley, quoted at Oxford only, is also very dear, the market average rising to 38*s.* 6¼*d.* The same fact applies to malt, the rent averages of which at Cambridge are 37*s.* 8¾*d.*, at Eton 49*s.*, at Oxford 37*s.* 1*d.*, the market averages being 39*s.* 2¼*d.* The general average is depressed by the entries in the D'Ewes' accounts, which give an average of only 19*s.* 7½*d.* Without them the general average would have been 41*s.* 3½*d.* Oats again at Cambridge during the greater part of the year are at very high prices, the average for the whole year being 18*s.* 5*d.*, and on one occasion a purchase being made at 25*s.* 3*d.* In every other account but that of D'Ewes they are also dear. Meal is not however very high. Beans are not found. Peas are however a great deal above the average.

With this year is completed that series of dear years to which allusion is made above. The succeeding years will not be cheap, though six will be below the average of the whole period, or even of the century 1603–1702.

1638–9. The price of grain is falling, the rate being steady during the whole year. The corn rents at Cambridge are at an average of 33*s.* 10*d.* But the bakehouse at S. John's is rather

incautious. It buys only twice in the year, to the extent of 109 quarters, for which it gives £202 1*s.* 4*d.*, i. e. 37*s.* 1*d.* the quarter. The Eton average is 46*s.* 10*d.* Mendham gives a long dated series between December and September, with an average of 36*s.* 6*d.* The Oxford rents in wheat are at an average of 40*s.* 2¼*d.* The market averages are at 37*s.* 7¼*d.*, and exhibit few fluctuations. At Oxford market the average price of barley is 26*s.* 3½*d.*, but D'Ewes sells at 22*s.* 4*d.* The Cambridge malt rents are at 26*s.* 1¼*d.*, those of Eton at 34*s.* 4*d.*, those of Oxford at 26*s.* 9½*d.*, the market average being given for two months only, May and June, when it is 28*s.* The price of wheat and malt go down steadily through the year. Oats are rather cheaper, the Cambridge average being 13*s.* 2½*d.* Oatmeal, from Mendham only, is very cheap. Rye is found, and nearly for the last time, when its price is proportionate. Peas are found only at Biggin and Cambridge, at lower prices.

1639–40. The price of grain is still falling. The Cambridge wheat rents are at an average of 28*s.* 8¾*d.*, the price rising again as the year closes. The bakehouse purchases 148 qrs. 2 bshs. for £184 6*s.* 8*d.*, at 26*s.* 8*d.* the quarter. The Eton average is 41*s.* 4*d.* The New College purchases are at 40*s.*, the prices rising notably in the last quarter, and flour corresponding. The Oxford wheat rents give an average of 36*s.* 2*d.*, the second All Souls price indicating the later rise. The Oxford market averages are at 32*s.* 0¾*d.*, and a short series from Mendham in spring and summer shows an unchanged price at 36*s.* But for the rise in August and September, the decline in price would have continued all through the year. Barley and malt are much cheaper. The Oxford average of the former is 17*s.* 8¼*d.*, on D'Ewes' estate 17*s.* 4*d.* The Cambridge malt rents are at 20*s.* 3*d.*, the Eton rents at 27*s.* 8*d.*, the Oxford rents at 21*s.* 8½*d.*, the market averages being at 21*s.* 6*d.* Oats are a good deal cheaper, the Cambridge average being 12*s.* 1½*d.* Oatmeal too is cheap, and the crop must have been abundant and good. Peas too at Biggin and Cambridge are cheap. I have not taken those of Mendham into my averages; they are plainly garden peas, and one entry is virtually so described.

1640–1. Prices have distinctly risen, but not so much in Cambridge as elsewhere. The wheat rents at Cambridge give an average of 35*s.* 4*d.* The bakehouse purchases, in amount 154 qrs. 3 bshs. and in cost £260 17*s.* 2*d.*, are at 33*s.* 9½*d.* But the Eton rents are at 53*s.* New College buys at 48*s.* during the first three quarters, and at 42*s.* 8*d.* in the last. The Oxford corn rents and assises are at an

average of 45*s.*, and the market averages at 41*s.* 4*d.* Flour at New College is proportionate. Barley is found at Oxford and Winchester, this last centre of the Act of 1576 appearing this year for the first time, but only by the house steward's or manciple's book, and thus indicating the charges of the fellows only. The Oxford average is 21*s.* 5½*d.* At Winchester, the mean between January and August prices is 30*s.* 4½*d.* The Cambridge malt rent is 22*s.*, that of Eton 29*s.* 8*d.*, that of Oxford 23*s.* 2¼*d.* Oats are dearer, the average being 13*s.* 9¾*d.* at Cambridge, 16*s.* at Eton and Winchester. Oatmeal is also a good deal dearer. Beans are still absent from the accounts. Peas are found at Cambridge, and always at the same price, 20*s.* Tares, i.e. I suppose vetches, are also given at Cambridge, the price being low. The entries from Winchester are of garden produce.

1641–2. We now come to a series of five cheap years. The average of the Cambridge wheat rents is 30*s.* 5*d.*, there being but little variation throughout the agricultural year. The bakehouse buys 136 quarters for £192 17*s.* 4*d.*, or 28*s.* 4½*d.* the quarter. Eton supplies only one price, at Michaelmas, the records of the College being lost for some years, though only absolutely for 1642 and 1643, the rough accounts of the bursar being existent for 1644. The price of the Oxford corn rents and assise is an average of 36*s.* 4½*d.*, and of the market averages 34*s.* 1½*d.* The cheapest prices of the year are in May and June, a sign that the prospects of the next harvest are encouraging. The price of barley is 21*s.* 2½*d.*, the rate being a little heightened by the Winchester purchase. Here again the lightest rate is in the spring. The Cambridge malt rent is 19*s.* 2¾*d.*; the only entry from Eton being Michaelmas, when prices were at the highest. The Oxford malt rent is 19*s.* 10*d.* Oats are cheap, the Cambridge account running through the whole year, and giving an average of 13*s.* 3¾*d.* Beans are again found at Oxford. Peas are cheap, but the entries from Winchester, being plainly garden produce, are not included in the average.

1642–3. Wheat is cheaper at Cambridge, dearer at Oxford, these two localities alone supplying me with evidence. The Cambridge corn rents are at 28*s.* 7¼*d.*, the bakehouse purchases being 73½ quarters, which cost £99 14*s.* 8*d.*, or 27*s.* 1½*d.* on the average. But that of Oxford is 44*s.* 10½*d.*, while the market averages are at 40*s.* 1¾*d.*, the rate being highest in March and April. These prices are however rather deceptive. Early in the war which had now begun, it was known that Oxford would be a point of attack by the Parliamentary forces, and of defence by the Royalists, and that it might, sooner or

later, have to sustain a siege. It is noteworthy that out of the four statutory towns or cities, three were on the line of the campaign, and one was actually occupied. But it appears that the Parliament, when militant and when triumphant, did not meddle with the two great schools and their foundations, though the victorious forces made havoc enough in Winchester city. The average price of barley is 19*s.* 8½*d.*, this rate being again rather heightened by the Winchester entry. Malt rents were at 18*s.* 0¾*d.* at Cambridge, at 20*s.* in Oxford, while at Hickstead the price is 22*s.* 3*d.* Prices are however very uniform throughout the year. Oats are at very various prices; the average at Cambridge is 11*s.* 7¼*d.*, at Oxford 16*s.*, while at Biggin and Winchester they are 20*s.* Beans (19*s.*) are found at Oxford; peas (20*s.*) at Biggin. Some entries of peas, evidently from their price garden produce, are found at Winchester.

1643–4. My evidence is again entirely from Oxford and Cambridge, but the entries are full and exact. Prices are generally rather lower, and would I believe have been lower still but for the alarms felt at Oxford. The Cambridge wheat rent is 30*s.* 0¾*d.* The bakehouse purchases are 62 qrs. 3 bshs. in quantity, and £90 16*s.* 9*d.* in cost, or at 29*s.* 1½*d.* New College, Oxford, beyond the purchases of wheat and flour which it makes for its staff, purchases between Christmas and Midsummer 'in view of the siege,' the general averages being at the rate of 37*s.* 3¾*d.* The wheat rents are at 38*s.* 7*d.*, and the market averages, still fortunately existent, at 37*s.* 2¼*d.* By an oversight, the flour purchase in the second quarter is printed by the bushel instead of the quarter, and should be 48*s.* instead of 6*s.* There is but little fluctuation in price during the whole year. Barley is cheap at Oxford, 15*s.* 3¾*d.*, dear at Winchester, where a small quantity is purchased. The Cambridge malt rents are at 16*s.* 11¾*d.*, in Oxford at 20*s.* In these again there is little change, all the year through. Oats are decidedly cheap, and so is oatmeal, entries of which will hereafter be regular. Peas are given in one place only, and are there cheap, for the entries at Oxford and Winchester are plainly of garden or pottage peas.

1644–5. Prices are a little higher. The Cambridge corn rents are at 32*s.* 9½*d.* The bakehouse purchases amount to 65 qrs. 2 bshs., and cost £101 5*s.* 3*d.*, or 31*s.* a quarter. The Lady Day price at Eton has been discovered, and the price at Lady Day is as high as any in the year. But Eton also purchases a large quantity of wheat, generally by the load, between April and September, and generally at low prices, so that the average in this place is 36*s.* 8*d.* The Oxford

entries are, taken all together, very numerous. New College makes its ordinary household purchases at an average of 40*s.* 8*d.* But the College notes that on March 21 the price is 50*s.* 8*d.*, on September 26, 52*s.* It buys also, in 'view of the siege,' at 45*s.* 4*d.* The special entries at New College therefore give an average of 44*s.* 4¼*d.*; the corn rents and assise are at an average of 42*s.* 11½*d.*; the market averages, which cease with this year, are at 41*s.* 4½*d.* There are two entries from Raglan and Winchester, both at 32*s.* Barley is at 18*s.* 7*d.* in the market averages at Oxford, 16*s.* in August at Winchester. Malt is dearer. The Cambridge rents are at 20*s.* 1¾*d.*; the Eton purchases at 30*s.* 3¼*d.*, the Oxford rents at 22*s.*, the price being raised by the second All Souls purchase. At Raglan, malt is as dear as wheat, at Winchester it is 22*s.* 8*d.* Oats are rather cheap. Meal is at a proportionate price. Beans at Cambridge are cheap. Peas are dearer.

1645–6. It is noteworthy that war was raging between King and Parliament during the preceding years, but was now virtually over, the battle of Naseby having been fought on June 14, 1645. During this, the last of the cheap years, prices continue low. The Cambridge corn rents are rather higher than they were the year before, at 33*s.* 3¼*d.* The bakehouse buys 155 qrs. 6 bshs. for £255 8*s.* 5½*d.*, i.e. at 32*s.* 9*d.* the quarter. The rents and purchases of Eton, the latter extending over the whole year, give an average of 39*s.* 1*d.* But the Oxford prices remain high. New College both buys and sells at a general average of 51*s.* 3*d.* The wheat rents are at 47*s.* 4*d.* Oriel College buys against the siege at 41*s.* It should be noted that at Oxford the price of wheat is high during nine months of the year. But on the other hand, a series of prices at Stamford market exhibits a low average, 27*s.* 5½*d.*; while another set at Wormleighton is at 27*s.* 7*d.* Barley is found in one locality at an average of 18*s.* 6¼*d.* Malt is 19*s.* 5¼*d.* in the Cambridge rents, 25*s.* 6*d.* at Eton, where purchases are made, 27*s.* 5*d.* at Oxford, 21*s.* 4*d.* at Winchester, 20*s.* 1*d.* at Castor, Northants. Oats are cheap everywhere but at Eton and Winchester, being 12*s.* 10½*d.* at Cambridge, 13*s.* 4*d.* at Biggin, and 12*s.* at Wormleighton. At Eton and Winchester they are over 16*s.* Beans and peas are at prices proportionate to those of other grain.

1646–7. We have now reached a period of six bad harvests, the average price of wheat being 58*s.* 7¾*d.*, while the average of the three years 1647–9 is 65*s.* 3½*d.* The Cambridge corn rents in the present year, the general average being 51*s.* 10¼*d.*, is 48*s.* 4*d.*; the bakehouse

purchases, made in the spring and summer, being at 47*s.* 6¼*d.* The Eton average is 67*s.* 4*d.*, while it buys for its own consumption at the rate of 62*s.* 9*d.* The New College purchases are at 61*s.* 2*d.*, which is also the rate of the Oxford corn rents. The Winchester purchases and grants are at 55*s.* 6*d.* The general average would have been higher but for a purchase at Lavenham, probably about Michaelmas, of some wheat at 32*s.* The Cambridge malt rents are at 25*s.* 2¾*d.*; those of Eton at 31*s.*, while some purchases are made in October at 26*s.*; those of Oxford being at 30*s.* 4*d.* The Winchester grants are at 32*s.*, its purchases at 26*s.* 5*d.* These purchases of wheat and malt, henceforth continuous, are made for the bakehouse and brewhouses of this corporation, where an incredible quantity of beer was consumed. The same locality also generally gives an annual price of oatmeal, which was used for the boys' pottage. Oats, of which considerable information is given, are also dear, especially as the year goes on. The average is 18*s.* 7*d.* at Cambridge, where they are bought for the stable all the year through. They are dear at Oxford, where at Corpus Christi College, by error, ordinary oats are described as meal. At Wormleighton, where there are entries in October, May, and June, the same exaltation of price is exhibited, the price being nearly doubled in the second of these months as compared with the first, the average being 18*s.* 10½*d.* At Yotes Court, Kent, they are not so dear, but still high-priced. At Winchester the entries are for the whole year, and the average is 18*s.* 5¼*d.* Beans, given at Cambridge and Oxford, are dear. Peas are not so dear. The harvest was bad in itself, and the price was heightened by the anticipation of a worse harvest to come.

1647–8. The price of wheat is still higher. The general average, 62*s.* 6*d.*, is supplied from five localities, at one of which the rate is more moderate. The Cambridge corn rents are at 62*s.* 5½*d.*, nearly the general average. The bakehouse buys at an average of 58*s.* 9*d.*, the amount being over 160 quarters. The Eton corn rents are at 80*s.* 4*d.* The Oxford rents are at 67*s.* 6¾*d.* But two purchases are made at Castor, the rate being 44*s.* The Winchester average for both grants and purchases is at 60*s.*, the latter being the average of the year. There was a slight fall in price during the winter, a great rise in the summer, 16*s.* between Easter (April 18) and August 24, 13*s.* 4*d.* between June 24 and August 1. Barley is found at Castor at an average of 39*s.* 1*d.* in May and June. Malt rents are at 31*s.* 4¼*d.* in Cambridge, 41*s.* in Eton. The ordinary days on which malt rents at Oxford are fixed give an unchanging price of 36*s.*, but

the second quarter at All Souls, this entry now ceasing, is 45*s.* 4*d.* The Winchester grants, really I expect based on the last year's charge, are low, but the purchases are high. The price, though a high one at all localities, is very uniform. Oats are very dear: 21*s.* 4*d.* at Biggin; 18*s.* 4*d.* at Cambridge, where only two entries are made; 24*s.* at Oxford, the high price being first noticed in April; and 24*s.* at Winchester; at Yotes Court, they are not so dear. Oatmeal at Winchester is not so high, considering the price of oats. Beans have not been found. Peas are dear.

1648–9. The general average is higher, being derived from all four centres. But the Cambridge corn rents are a little lower, the average being 56*s.* 11¼*d.*, as are also the bakehouse purchases at 51*s.* 6½*d.* But the Eton and Oxford rates are higher, 86*s.* at the former. As regards the latter, New College purchases in the last two quarters of the year (the corporation, dispersed during the siege and subsequent operations, having come again into residence) at the rate of 69*s.* 11½*d.* The Oxford rents are at 66*s.* 4*d.* The Winchester grants are at 70*s.*, the purchases at 56*s.* 6*d.* Prices are lowest in the early winter. Barley is found at only one place, where it is very dear. The malt rents do not differ materially in rate and sequence from the year before. They are 33*s.* 6*d.* at Cambridge, 40*s.* 0½*d.* at Eton, 35*s.* 6*d.* at Oxford. At Winchester the grants are at 34*s.* 8*d.*, the purchases at 31*s.* 3*d.* Oats are dearer. The average at Cambridge, again giving full particulars, is at 23*s.* 11¼*d.*, at Eton 29*s.* 5¼*d.*, at Oxford 24*s.*, at Winchester 18*s.*, at Yotes Court 20*s.* 6*d.* The price of oatmeal is enormous at Hampton and Oxford, 96*s.* But at Winchester it is far lower, hardly more than half the price. I conclude that the oat crop was not so much a failure in the south of England.

1649–50. There is little change in prices. King's College gives a register of prices for the last three quarters of the year. The average of the first of these is 59*s.* 3½*d.*, of the second 58*s.* 10½*d.*, of the third 52*s.* 4*d.* But the S. John's corn rents give the highest average of the three years, 61*s.* 2*d.*, the bakehouse price being 56*s.* 9*d.* At Eton the rents are at 75*s.* 2*d.*, the exact price paid for their purchases. An entry at 37*s.* 2*d.* extracted from their account book is unquestionably an error of the scribe. During the first quarter of the year, New College purchases at 70*s.* 8*d.*, then abandons the practice of baking for itself, and buys bread of the common baker. Flour however, no doubt purchased for pastry, is at the same price, 80*s.*, as last year. The Oxford corn rents are higher, 68*s.* 10½*d.* The Winchester grants and

purchases are at an average of 68*s.* 9*d.* I have still an entry of barley from the same locality as last year, at a high, but lower price, 34*s.* 8*d.* Malt slightly declines in price in the spring, more in the summer. In the same quarters of the year at King's College it is 34*s.* at Christmas and onwards, 33*s.* 1½*d.* in the Lady Day quarter, 27*s.* 1½*d.* in the summer quarter. At S. John's the rents are at 31*s.* 6*d.*, or a penny less than the King's College average. Only one entry has been found at Eton. At Oxford the average is 36*s.*, at Winchester 30*s.* 5*d.* Oats begin at a higher price at Cambridge, but decline very much as summer advances. They are 18*s.* 1¼*d.* at Cambridge, 17*s.* 2*d.* at Eton, 20*s.* 2*d.* at Winchester, 19*s.* 4*d.* at Yotes court. At Oxford, they are bought only at the end of the year when prices are declining, and the character of the crop is suggested by the contrast between the dried and undried article. Here the price is lowest of all, 14*s.* 4*d.* Oatmeal at Oxford is still dear. For this and the next year, Winchester buys no oatmeal. For this and for several years almost consecutively, New College buys 8 quarters of beans from two of its Essex tenants, and has them sent to Oxford, the cost of carriage being considerable. Peas are exceedingly dear, beans cheap. This is the last year of real famine, though prices during the following year are generally very high.

1650–1. Prices have fallen. The wheat rents at Cambridge are at 44*s.* 6*d.*, the bakehouse purchases, now assuming their former dimensions, are at 41*s.* 7*d.* But the Eton corn rents, the College having increased the number of its rent days, are at 71*s.* 8*d.*, while the purchases for domestic consumption are at 63*s.* 8½*d.* The flour purchases at New College suggest a higher price than the rent averages, which are at 53*s.* 6*d.* The average of the Winchester grants and purchases is at 57*s.* 8*d.* Though wheat is still dear, malt is cheaper. The Cambridge rents are at 23*s.* 10¼*d.*, those of Eton at 30*s.* 10½*d.*, while it purchases for its brewhouse at an average of 29*s.* 1½*d.* The Oxford rents are at 27*s.* 8*d.* The Winchester average is 24*s.* 9*d.* Oats are a great deal cheaper, though they rise in Cambridge towards the end of the year. Here the average is 13*s.* 2¼*d.* At Eton it is 16*s.* 0¼*d.*, at New College, Oxford, 13*s.* 6¾*d.*, at Yotes Court 12*s.* 5*d.*, most of these being dated entries. At Winchester the yearly average is 14*s.* 8½*d.* The price of old oats at Yotes Court is significant. Beans are cheaper on the two New College farms, and peas have greatly fallen in price. Oatmeal is supplied for every quarter at Oxford.

1651–2. Prices, though still above the average, have fallen considerably. The Cambridge corn rents give an average of 39*s.* for

wheat, the bakehouse purchases being at 35*s.* 7*d.* Eton, which has now adopted five rent days, gives an average of 58*s.* 6½*d.* The price of flour is still high at Corpus and New Colleges, Oxford. The Oxford corn rents are at 49*s.* 4*d.*, the Winchester averages at 50*s.* 2*d.*, but the grants are nearly 20*s.* a quarter higher than the purchases. I conclude that the quantity of the crop was higher than its quality. Malt rents are lower; 22*s.* 5¼*d.* at Cambridge, 27*s.* 8½*d.* at Eton, 24*s.* at Oxford; the Winchester average is 24*s.* 2*d.* The price of oats is decidedly higher. This grain is at 16*s.* 7*d.* in Cambridge, the record being full; 16*s.* 10½*d.* at Eton, 17*s.* 10¾*d.* at Yotes Court. There is an entry at 23*s.* 10*d.* in Oxford on February 6, but oats were everywhere very dear in the winter; though they ran up to higher prices in the summer. At Winchester the average is 12*s.* 4½*d.* Meal after the first quarter is not dear, and the price seems to indicate that the quality of the grain was good, though the crop may have been scanty. The record of the New College purchases in Essex is lost for some years. Peas are at more moderate prices.

1652–3. We are now beginning a series of five cheap years, one of which is the cheapest of the whole century. In this year the average of the Cambridge wheat prices is 29*s.* 6½*d.*, the bakehouse buying at 26*s.* 9½*d.* Eton begins to record the purchases for its own consumption, having now entirely abandoned corn payments, and are buying on a very large scale, this year over 348 quarters at an average of 35*s.* 4*d.*: its corn rents being at an average of 38*s.* 8*d.* The Oxford rents are at 37*s.* 6*d.* The Winchester average is 38*s.* Barley is sold in the Oxford market in July and August at 17*s.* 1*d.*, these averages, suspended for some years, reappearing for a time. The Cambridge malt rent shows an average of 23*s.* 5¾*d.*, that of Eton 28*s.* 2¼*d.*, that of Oxford 24*s.*, while the Winchester average is 24*s.* 7*d.* Oats are dearer than they have been since 1648, abundant and dated information being supplied. They are at 18*s.* 1¼*d.* in Cambridge, at 17*s.* 8½*d.* in Eton, while Master of Yotes Court gives an average of 18*s.* 1*d.* for his supply; at Winchester they are at 19*s.* 4*d.* Meal at Winchester is at 54*s.*, a distinct rise. Peas and beans are both comparatively dear.

1653–4. The price of corn declines considerably. The Cambridge wheat rents are at 20*s.* 11¾*d.*, and the bakehouse purchases are effected at precisely the same rate. The Eton average is 27*s.* 3½*d.*, the large purchases of the establishment being effected at 25*s.* 9*d.* The Oxford rents are at 23*s.* 4*d.*, while the market averages are at 20*s.* 2¾*d.* The grants at Winchester are at 36*s.* 8*d.*, the purchases at 25*s.* Flour and meal are also very cheap, both at Mounthall and

Oxford. The year was one of great plenty. Barley is sold in Oxford market at an average of 15*s.* 4¾*d.* Malt is not quite so cheap as might be expected, did we not remember that when bread was cheap more beer was drunk. The Cambridge malt rents are at an average of 16*s.* 7¼*d.*, those of Eton at 22*s.* 10*d.*, those of Oxford at 19*s.* 4*d.* Winchester grants at 20*s.* and buys its large and almost regular amount at 18*s.* 2¾*d.* Oats are also cheap, the information being abundant. The average at Cambridge is 11*s.* 8½*d.*, at Eton 12*s.* 5¼*d.*, in Oxford 11*s.* 4¼*d.*, in Winchester 11*s.* 9½*d.*, at Yotes Court 11*s.* 10*d.* At Mounthall in October and January they are rather dearer, 15*s.* 2½*d.* Meal is found at Winchester and Mounthall, and is dearer at the former than at the latter. Beans are found at Eton. Peas at Biggin, Cambridge, and Mounthall. They are not so cheap as one might expect. There is no great fluctuation in price throughout the year, but generally they are highest at Michaelmas. Under the prospect of the coming harvest, they go to the lowest in the summer.

1654–5. The price of wheat is the lowest of the century. The Cambridge wheat rents are at 20*s.* 9½*d.*, the bakehouse purchases at 19*s.* 7¾*d.* The Eton rents are at 23*s.* 4¾*d.*, no record being kept of its purchases. At Mounthall there is an average of 21*s.* 2½*d.*, though some wheat is bought for the pigeons at 10*s.* The Oxford corn rents are at 21*s.* 7¼*d.*; the market averages in this city are at 21*s.* 0¾*d.* The lowest price is at Winchester. Here the grants are at 26*s.* 8*d.*, but the purchases were made at 17*s.* 9*d.* Barley is sold in the Oxford market at an average of 13*s.* 3¾*d.* The Cambridge malt rents are at 14*s.* 6½*d.*, those of Eton at an unvarying price on six rent days of 20*s.*; the Mounthall average is 18*s.* The Oxford malt rents are at 16*s.* 8*d.* Prices are again lowest at Winchester. The grants are at 16*s.*, but the purchases are effected at 14*s.* 2½*d.* The price of oats is lower than it was last year. At Cambridge it is 10*s.* 9*d.*, the highest prices being in April. At Eton it is 13*s.* 8*d.* At Oxford, where the purchases are in the last two quarters, it is 12*s.* 6½*d.* At Winchester it is 11*s.* 1½*d.* The lowest price is at Yotes Court, where oats are bought at an average of 9*s.* 10½*d.* Oatmeal is rather dearer than one might have anticipated. Beans at Eton are rather dearer than one would have expected, nearly as dear as the average of wheat, nor are peas as cheap as they might be, proportionately to other kinds of grain. Tares are found in February, March and August, at 16*s.* in the first two months, at 20*s.* in the last. The year was one of extraordinary and general plenty.

1655–6. There is a considerable rise in the price of grain, particularly in wheat, the price increasing as the year goes on. The Cam-

bridge corn rents are at an average of 30*s.* 7½*d.*, the bakehouse buying on the whole at 28*s.* The Eton corn rents are at 42*s.* 2¾*d.* The average Mounthall prices, extending from October to February, is 31*s.* 11¾*d.* The Oxford corn rents are at 37*s.* 8*d.*; the market averages at Oxford are at 36*s.* 2*d.* The grants at Winchester are at 33*s.* 4*d.*, the purchases for consumption at 32*s.* 2*d.* There is a single entry at 26*s.* from Horstead Keynes. Barley is found at Mounthall and Oxford. The average at the former is 17*s.* 6*d.*, at the latter 17*s.* 9½*d.* The Cambridge malt rents are at 16*s.* 8*d.*, those of Eton at 20*s.* 4½*d.*, those of Oxford at 18*s.* 8*d.* The Winchester grants are at 24*s.*, the purchases at 17*s.* Prices are generally uniform, but there is a slight rise at the end of the agricultural year. The entries of oats, particularly at Cambridge, are very copious. The Cambridge average is 13*s.* 3¼*d.*, purchases being made almost always at dates throughout the year, and prices rising towards its conclusion. Small quantities are bought at Eton and Horstead Keynes, and in both at high prices. The Mounthall average is 11*s.* 7¾*d.*, extending from October to January. The Winchester average is 11*s.* 1*d.* Yotes Court buys at 10*s.* 6*d.* Beans and peas are at fair prices. Tares are quoted four times, in one place very cheap, in the other at a moderate rate.

1656–7. There is a further rise, though the price is still below the general average. The Cambridge corn rents are at 35*s.* 3*d.*, the bakehouse purchases at 32*s.* 10¾*d.* At Eton the rents are rather lower than they were the year before, at 41*s.* 1¼*d.* The Oxford wheat rents are at 39*s.* 10*d.*, and the market averages at 38*s.* 2¾*d.* The Winchester grants are at 36*s.*, its purchases at 32*s.* 7½*d.* The dearest times of the year are at Michaelmas and Lammas, the cheapest at Midsummer, so that in all probability the price was heightened by the prospects of the coming harvest. Barley has been found at Oxford only, and at a corresponding exaltation of price. The malt rents in Cambridge are at an average of 22*s.* 11*d.*, in Eton at 26*s.* 8*d.*, in Oxford at 24*s.* 6*d.* The Winchester grants are at 26*s.* 8*d.*, the purchases at 23*s.* 7*d.* In the early part of the agricultural year, oats are dear at Cambridge, but fall towards the summer. The price at Cambridge, from which entries are very numerous, is 16*s.* 3*d.*; at Eton it is 17*s.* 8*d.*; at New College, Oxford, 13*s.* 10½*d.*; at Winchester, 15*s.* 4½*d.*; at Yotes Court, where the price is high in September 1656, low in September next year, the average is 15*s.* 10¼*d.* But meal is a little dearer. Beans and peas are at the same price, and rather high, It appears to me that oats were a comparative failure in the Eastern Counties.

1657–8. The price of wheat is considerably higher, and denotes great scarcity. The wheat rents at Cambridge are at 46*s.* 11¼*d.*, while the bakehouse buys at 43*s.* 2*d.* in the last two months of the year at very high prices, the coming harvest being anticipated. The Eton rents are at 51*s.* 5¼*d.*, those in Oxford at 48*s.* 8*d.*, while the market averages are at 46*s.* 3¼*d.* The Winchester grants are at 41*s.* 4*d.*, its purchases at 45*s.* 7*d.* There is an entry at Horstead Keynes at 58*s.* 8*d.*, and one, the cheapest in the year, at Hickstead at 34*s.* Prices rise towards the end of the year. With this year the record of the Oxford market averages ceases. Barley and malt do not rise so notably as wheat does: the average of the former at Oxford is 23*s.* 3¼*d.* The Cambridge malt rents are at 22*s.* 10¼*d.*, those of Eton at 27*s.* 5¼*d.*, those of Oxford at 24*s.* 8*d.* The grants at Winchester are at 28*s.*, the purchases at 23*s.* 3½*d.* Oats begin at a low price, and begin to rise in July, till by September they are double what they were ten months before. The Cambridge average is 15*s.* 4¾*d.*; at Oxford they are at 15*s.* 1*d.* The Winchester average is the highest of all, 17*s.* 1*d.* At Yotes Court, the average from October to September is the lowest, 12*s.* 10*d.* Meal at Winchester is not so dear, as the price of oats would suggest. It is higher at Horstead Keynes, where oats are cheaper. Beans have not been found. Peas at Biggin are not very dear.

1658–9. We have now come to what is so characteristic of this century, a succession of years marked by very high or very low prices. In this case we have now four consecutive years of great dearness, the last of the series being beyond parallel in past experience, and reaching to the highest price of the whole period. The Cambridge wheat rents, higher at the beginning of the year than towards its close, are at an average of 52*s.* 2¼*d.* The bakehouse purchases are at 48*s.* 10*d.* The Eton rents begin at 80*s.*, and fall to 64*s.*, the average being 71*s.* 4*d.* The Oxford rents are at 60*s.* 10¾*d.*, the Winchester entries are at 50*s.* 1¼*d.* This is the first year for which the Winchester rents have been found, and in course of time I discovered that it was the custom of the College to postdate their corn rents by a year, so that I was able to correct the entry when the record became continuous. It is not, unfortunately, continuous yet. The malt rents at Cambridge give an average of 28*s.* 8½*d.*, of Eton 33*s.* 9¼*d.*, of Oxford 29*s.* 4*d.* The grants at Winchester are at 30*s.* 8*d.*, the purchases at 26*s.* 8*d.*, but the rents, which may belong to 1657–8, are at 24*s.* Oats are very dear. The averages from numerous entries at Cambridge is 19*s.* 11¼*d.* But they are cheaper at Oxford, being bought in the first and the fourth

quarter, and being at 15*s.* 11½*d.* At Winchester the average is 19*s.* 6*d.*, a Lady Day oat rent being 19*s.* 4*d.*; at Yotes Court they are 16*s.* 7¼*d.*, the price in this locality rising to 21*s.* in May. The two Essex estates begin again to supply beans to their Oxford landlord. The price is not high considering, nor is that of peas. From this year the price of beans is unbroken.

1659–60. The price of wheat is lower, though only a little on the average. The Cambridge corn rents are at 44*s.* 2½*d.*, the price having sunk in the winter to 40*s.*, and not rising till after Easter: of this chance the bakehouse wisely avails itself, and buys at 39*s.* 3*d.* The Eton rents are at 60*s.* 6½*d.*, the purchases for the College at 50*s.* 0½*d.*, a proof I think that in this locality at least there was either a great difference of quality or, as is quite likely, that Eton sent its agents to a distance to buy wheat. The Oxford corn rents are at 57*s.* 8*d.* The Winchester returns give an average of 53*s.* 8*d.* The Cambridge malt rents are at 26*s.* 3¼*d.*, a rather lower rate than last year: the Eton and Oxford are higher, being respectively 34*s.* 1½*d.* and 32*s.* 4*d.* The Winchester entries give an average of 26*s.* 10¾*d.* Oats are much dearer, and were probably of very various quality. At Cambridge, after being high up to May, they fall in July and August, the general average being 18*s.* 3*d.* At Eton they are at 21*s.* 4*d.* At Winchester the purchases are at 15*s.* 6*d.*, while the solitary oat rent is at 20*s.* Yotes Court buys in November and December at 11*s.* 6*d.*, and this grain is cheap in Kent. Beans are rather higher; peas rather cheaper.

1660–1. The average of this year would differ little from the last, had not the forecast of the coming harvest depressed prices in the summer. The average of the Cambridge rents is 49*s.* 0¼*d.* The bakehouse again buys in the winter, and buys well at 39*s.* 1*d.* At Eton the rent average is 58*s.* 3¼*d.*; while the purchases of the College, in an instructive and dated register, are at an average of 53*s.*, the price as a rule going steadily up. The Oxford average is 52*s.* 8*d.*, the Winchester average being 53*s.* 7¾*d.* Malt rents at Cambridge are at 24*s.* 9*d.*, at Eton 32*s.* 9½*d.*, at Oxford 25*s.* 4*d.*; at Winchester the average is 27*s.* 1*d.* Oats however, very plentifully recorded, are much cheaper. The Cambridge average, derived from very copious entries, is 13*s.* 7¾*d.*, that of Oxford 14*s.* 4¾*d.*, that at Winchester 14*s.*, while the purchases at Yotes Court are at 13*s.*: Eton alone is dear at 20*s.* 10*d.* Oatmeal is also at a moderate price. Beans are cheap, and peas far from dear.

1661–2. This year was one of famine. It is remarkable that a

dearth more serious than had occurred for over fifty years and prices higher than in any record should have been unnoticed by historians, whose interest appears to be chiefly occupied in dealing with the conduct of Charles towards his mistress Barbara Palmer and his wife Catherine of Braganza. The returns for this year should be examined carefully. They are from the usual sources, Cambridge, Eton, Oxford, and Winchester, the return of purchases at Eton being unusually copious, and consisting of fifteen entries, the dates unfortunately not being given. Now the S. John's rents give an average of 76*s.* 6¾*d.* on the year from Michaelmas to Lammas. The bakehouse purchases, made between October and April, are at 72*s.* 11*d.*, so that the S. John's record amounts to an average of 74*s.* 8¾*d.* There are ten entries on the King's College account for the year. Now it had become the practice of this College to enter these payments only under date, which were made to time, i.e. which were not in arrear; and not only is it clear that this College had a different authority from that of S. John's for its maximum, but it is open to doubt whether it did not occasionally charge its farmers with the rate of the year following that by which its audit is dated. I drew this inference from the Tanner entries, which are plainly Cambridge, and generally are identical with the King's College rents, if taken a year later for the Michaelmas rental only. But on the other hand, the later entries—for King's College has rent-days on S. Bartholomew's day (August 24) and S. Matthew's (September 21)—indicate, as purchases in the later part of the year do, what was the market at such a time. Now the general average of the King's College rents is 66*s.* 0½*d.* But if the first two entries are taken from this year, and the first two entries of 1660 (from the same source) be substituted, the average of the King's College rents will be 70*s.* 4¼*d.*, and the general average from Cambridge will be 73*s.* 4*d.* And this I believe was the case during this year at Cambridge, the dearest rates being about Lady Day, when the extent of the deficiency would become known and the prospects of the coming harvest would be uncertain. The case at Eton is clear enough. Five rent days are recorded, between Michaelmas and Midsummer. Here the highest prices are towards the last two of these dates, and show that the prospect was not lightened by the latter end of June. But the purchases supply the same inference as those of King's College do. The highest entry is the eleventh, at 92*s.* But then the price begins to fall rapidly, till by the end of the agricultural year Eton buys at little more than half what it gave three or four months previously, for it sinks to 48*s.* The average of the rents is 88*s.*, of the purchases 74*s.* 7½*d.* The Oxford

rents, two only, give an average of 79*s.* 10*d.*, the highest price here also being Lady Day. Now come the Winchester rents. According to the record, they give an average from the seven rent days which Winchester always has, of 49*s.* 1¾*d.*; the grants, which are always a maximum price, being at 60*s.*, and the purchases at 65*s.* Now this discrepancy first led me to conclude that the Winchester corn rents were dated a year too early, a suspicion which was abundantly confirmed when they began to be continuous. But the rents are lost from this year till 1664. If however one takes the grants of 1662 as really the price of 1661 the rent was 80*s.*, which with the purchases gives an average of 72*s.* 6*d.*, and the price of the year as supplied from these four localities is 76*s.* 9*d.* instead of 70*s.* 9¾*d.* as given in the averages below. The Cambridge malt rents are at 35*s.*, the highest price being at Easter or Lady Day. (Easter was this year, old style, on March 30.) At Eton the rents are at 40*s.* 9½*d.*, while the purchases by the College are at 34*s.* 4*d.* The Oxford average is 36*s.* 8*d.* At Winchester the difficulty already alluded to arises again. The entries are almost certainly of the 1660 harvest, for the average is not quite 23*s.*, while the purchases are at 31*s.* 0½*d.* I have however in these two kinds of grain followed the obvious instead of the corrected entry. There is abundant evidence of the price of oats. At Cambridge they are purchased from the beginning of October to the latter end of September, and are dearest in July, the average being 22*s.* 6*d.* There are numerous entries at Eton, and purchases between October and August, at an average of 22*s.* 4*d.* At Oxford they are bought at an average of 20*s.* 7*d.*; at Winchester they are 20*s.* 4*d.* Oatmeal is not so dear as might be expected. I am disposed to believe that oats and oatmeal were a better crop than other kinds of grain, and that the rise in the price is due to an extensive demand, rather than to a deficient supply. Beans are very cheap. Peas are rather dear.

I have dwelt on this year of excessive dearth, partly because it must have been one of a most exceptional character, partly because it gives me the opportunity of stating that however copious may be one's materials, they are still necessarily open to constructive criticism. The record at Winchester and King's College was intelligible enough when first compiled, but as one has to find out the explanation of an obvious discrepancy, no little care and thought is needed, in order to make the facts harmonise. In the present period the nearest analogue to the harvest of 1661 was that of 1596. The years 1556, 1438, 1316 and 1315 are, till we come to deal with the latter end of the eighteenth and the early part of the nineteenth century, the only genuine

English famines. I have little doubt that the actual loss of life was considerable, and that the hardships of this year had its effect on facilitating the terrible and last visitation of the Levant plague, which was at hand.

1662–3. Prices are much lower, though it is plain that the harvest is below the average. The Cambridge wheat rents are at 42*s.* 9*d.*, the lowest price being at Midsummer, the highest in August. The bakehouse buys every four weeks, at an average of 39*s.* 4*d.*, and more than 200 quarters. The Eton rents fall from Michaelmas to Midsummer, and are at an average of 52*s.* The purchases, of which there are eleven entries, are at 47*s.* 4¾*d.*, the highest being the last but one. The Oxford rents are at 48*s.* The Winchester purchases are at 38*s.* 9*d.* Two entries from Hickstead give an average of 33*s.*, and an assise published by the Portsmouth corporation, which will become more frequent, shows that wheat was at 38*s.* in that town on October 1. The Cambridge malt rents are at 27*s.* 11¼*d.* The Eton malt rent average, 34*s.* 8*d.*, is lower than that at which the College purchases, for the average of the two is 35*s.* 7¾*d.* At Oxford it is 28*s.* 4*d.* At Winchester the purchases are effected at an average of 27*s.* 5¾*d.*, the grants and solitary rent given being at 30*s.* Oats are at 15*s.* 9*d.* in Cambridge, at 18*s.* 7½*d.* at Oxford, at 14*s.* in Hickstead, at 16*s.* 7¼*d.* in Oxford, at 16*s.* 6½*d.* in Winchester, and at 16*s.* at Yotes Court. Meal is as dear as it was the year before. Beans and peas are at moderate prices.

1663–4. We are now entering on a cheap decade of years, in which every year but this is below the general average. The Cambridge wheat rents are at an average of 44*s.* 5¼*d.*, and the bakehouse purchases are a little higher, at 45*s.* 1¼*d.* The Eton wheat rents are at 53*s.* 8¾*d.*, but the purchases for the College are effected at 45*s.* 7½*d.* The Oxford wheat rents are high, and at the same level through the year, 52*s.* Wheat is cheap at Winchester, the purchases being made at an average of 38*s.* 6*d.* Barley is found at Hickstead at 18*s.* But the malt rents are much higher; at Cambridge, 24*s.* 3¾*d.*; at Eton, 30*s.* 6½*d.*, while the purchases are effected at 28*s.* 8*d.*; and the Oxford rents at 25*s.* 10*d.* The Winchester grants and purchases are again the cheapest, at 21*s.* 1¾*d.* Oats are cheap at Cambridge, but are only found in the winter; dearer at Eton, where they are bought from December to June. The average at Winchester is 15*s.* 3¼*d.* There are a few other purchases of oats. Beans are rather dear. Peas, found at Biggin only, are cheap.

1664–5. The evidence for this year is limited to the four centres

of 1576, but is abundant in three out of the four. The average of the Cambridge wheat rents is 34*s.* 5*d.* The bakehouse purchases are made throughout the year, and the College had between September 23 and October 21 to pay a rather high price for a small quantity of wheat. Had it not been for this, the averages would have been at a lower rate than 33*s.* 7*d.* The Eton average is 48*s.* 3*d.* There are twelve entries of purchases by this corporation at an average of 40*s.* 11¼*d.* The Oxford wheat rent is at an average of 41*s.* 8*d.* The Winchester rents are at 38*s.* 7*d.*; the grants at 42*s.* 8*d.*, the purchases at 34*s.* 1*d.* But the first of these three is probably post-dated, and should belong to 1663–4. But up to 1673, the differences of price from year to year are trivial. The highest prices of the year are at Lady Day and Midsummer in nearly all places. This means that the crop was under-estimated, and that there was some alarm felt in the summer. But the alarm might have been caused by the plague, which raged everywhere this year, though we know most about its ravages in London. Malt rents in Cambridge are at 19*s.* 9*d.*, in Eton at 28*s.*, while the purchases at the latter are at 25*s.* 6½*d.*; in Oxford they are at 22*s.* 8*d.*; in Winchester, under the same reservation at 20*s.* 1½*d.*; the grants being at 23*s.*, and the purchases at 19*s.* 7½*d.* Oats are 12*s.* 2¾*d.* at Cambridge; 16*s.* 8*d.* at Eton; 15*s.* 2*d.* at Oxford, where they are dear in the last two quarters; 14*s.* 6½*d.* at Winchester. Oatmeal is dear, and I think that this crop must have been a light one. Beans and peas are very cheap.

1665–6. Nearly all kinds of grain are cheaper. The wheat rents at Cambridge give an average of 27*s.* 0¾*d.* The bakehouse purchases, the College being now scanty in numbers owing to the pestilence, are at 26*s.* 9¼*d.* The Eton rents are at an average of 43*s.* 5½*d.*; the purchases at 33*s.* 10*d.* Prices at Oxford are higher, at 41*s.* 4*d.* The Winchester rents, with the same reservation as to the year, are at 34*s.* 10¼*d.*; the grants at 30*s.*, the purchases at 36*s.* Prices are at their lowest in the summer, and for the usual reason, the anticipation of an abundant harvest. The Cambridge malt rents are at 18*s.*; those of Eton at 26*s.* 7¼*d.*, while the purchases are at 26*s.* The Winchester malt rents are at 20*s.* 2¾*d.*; the grants at 25*s.* 4*d.*, the purchases at 23*s.* 7*d.* Oats are still rather dear, there being great variations of price. The Winchester average is higher than in the previous year, 16*s.* 2*d.* The price of meal is at the same price as last year. Beans and peas are dearer than in the year before.

1666–7. This is a very cheap and abundant year. The Cambridge rents are at 24*s.* 9¼*d.*; and the bakehouse purchases at exactly the

same average. The Eton rents are at 30*s.* 9¼*d.*; the purchases at 29*s.* 1¾*d.*; the second half of the year giving a higher price than the first. At Oxford the average is 28*s.* 8*d.* The Winchester corn rents are at 34*s.* 7*d.*, the highest average of all; the grants are at 36*s.*, the purchases at 25*s.* Besides this, the College made a gift of four quarters to the sick poor in Winchester. It was this discrepancy which strengthened my conviction that the Winchester rent days were post-dated, or rather that they had been collected the year before, and were the liabilities of the tenants in the year following. The assise at Portsmouth on April 1 was 24*s.* The malt rents at Cambridge give an average of 16*s.* 0¼*d.*; those of Eton of 22*s.* 11¼*d.*, the purchases of 21*s.* The Oxford malt rents, unchanged through the year, are at 17*s.* 4*d.* The Winchester malt rents are at 23*s.* 1¼*d.*, again the highest; the grants are at 18*s.*, the purchases at 17*s.* 3*d.* Oats are generally cheaper. The purchases at Cambridge are dated from January to September, and give an average of 11*s.* 10¼*d.*, the price rising at the end of the agricultural year. There is one very high price at Eton. The Winchester average is 12*s.* 4*d.*, and the price of oatmeal has fallen considerably. The oat crop was therefore a satisfactory one. Beans are cheap at the two Essex farms, but a small quantity is very dear at Eton. Peas at Biggin are cheap, at Eton rather dear.

1667–8. There is not much difference in the character of this year as compared with the last, though prices are a little higher. The wheat rent average at Cambridge is 30*s.* 5½*d.*; the bakehouse average 26*s.* 8*d.*; the lowest price of the year being that of Midsummer. At Eton the average is 36*s.*, and the lowest price is that of May Day. The Eton purchases, dated from September to July, give an average of 31*s.* 11*d.* At Oxford market the average is unchanged, 34*s.* 8*d.* The Winchester rents are at 26*s.* 3*d.*, the lowest of the four, while the grants are at 32*s.*, and the purchases at 27*s.* The Cambridge malt rents are at 19*s.* 5¾*d.*; those of Eton, unchanged through the year, at 24*s.*, the purchases being at 21*s.* The Oxford malt rents are also unchanged, at 21*s.* 4*d.* The Winchester malt rent is at an average of 17*s.* 2*d.*; the grants are at 17*s.* 4½*d.*, but the purchases at 18*s.* 3¼*d.* Again Winchester is the cheapest of the four. At Cambridge, oats decline in price towards the conclusion of the year, the general average being 12*s.* 9½*d.* The average at Winchester is 12*s.*, meal having also fallen slightly in price. But oats are dear at Eton. The Winchester oat rents are to be criticised as the others are. Beans are a good deal dearer, but peas, except in one locality, remain cheap.

1668–9. Prices are sensibly higher, the highest point being reached

in Cambridge on Lady Day. Here the general average of the wheat rents is at 37*s.* 9*d.*, while the bakehouse buys at an average of 33*s.* 9¼*d.* The Eton average, the highest prices being in the summer, is 47*s.* The numerous purchases effected in winter and early summer are at an average of 43*s.* 1¾*d.* The Oxford average is at 44*s.*, the highest price being also at Lady Day. A low price on Ocotber 1 is given in the Portsmouth assise. The Winchester rents are at an average of 39*s.* 9¾*d.*, the grants being at 32*s.*, and the purchases at 36*s.* 6*d.* The Cambridge malt rents give an average of 22*s.* 7¾*d.* The Eton average is 25*s.* 4*d.*, while the purchases are effected at 24*s.* At Oxford the average is 23*s.* 4*d.*; at Winchester the average is 17*s.* 5¼*d.*, the grants being at 22*s.*, the purchases at 20*s.* 3¼*d.* There is no material change in prices throughout the year, but the highest rates as a rule are from Candlemas to Lady Day. Oats are cheaper, even at Eton; but the Cambridge entries, at which the average is 10*s.* 5½*d.*, are marked by the entries of what is plainly a low quality of grain under the name of fen oats. These occur this year for the first time by name, though it by no means follows that they have not been bought previously. The Eton average is 16*s.*; that at Winchester is 12*s.* 2½*d.*; while oatmeal, the best test, has further fallen in price. Beans and peas are both cheap.

1669–70. The price of wheat is falling. The Cambridge wheat rents are at an average of 31*s.* 1¼*d.*; the purchases, mainly made in March when the price was the lowest of the year, are at an average of 30*s.* 3*d.* The Eton average is 40*s.* 1¼*d.*; while the purchases for the College, made at fourteen different occasions, are at 37*s.* 5¾*d.* The Oxford wheat rents are at the same price through the year, 38*s.* 8*d.* The Winchester wheat rents are at an average of 39*s.* 8*d.*; the grants are at 42*s.* 8*d.*, and the purchases at 29*s.* 9¾*d.* The malt rents are not quite so low. The Cambridge average is 20*s.* 0¼*d.* The Eton rents are at 20*s.* 8*d.*, the purchases at 25*s.* 6*d.* The Oxford rents are at 22*s.*, the price falling as the year goes on. The Winchester average is at 20*s.* 10¾*d.*; the grants being at 22*s.*, the purchases at 21*s.* 4*d.* The average price of oats at Cambridge is 13*s.* 9*d.*, three of the entries being described as 'fen,' and these entries extending from November to August. At Eton oats are dear. The Winchester average is 12*s.* 6*d.*, and oatmeal is at a little higher price than in the previous year. Peas are at a fair price in Biggin and Cambridge. Beans are cheap on the Essex estates, but a small quantity is purchased at a very high rate at Eton. On the whole prices are very level through the year, though they decline towards its conclusion.

1670–1. Prices are a little higher. The Cambridge wheat rents show an average of 35*s.* 6*d.*, while the purchases are at 31*s.* 2*d.* On the other hand, the Eton rents are a little lower than the year before, the average being 38*s.* 2¾*d.*, and the purchases yielding a rate of 36*s.* 8*d.* In Oxford the rents are a little higher, at 40*s.* 4*d.* The Winchester rents are at 30*s.* 8*d.*, the grants at 36*s.*, the purchases at 34*s.* 2*d.* The malt prices are on the whole a shade lower. The Cambridge rents are at 18*s.*; those of Eton at 26*s.* 3½*d.*, the purchases at 24*s.* 10½*d.*; the Oxford rents are at 23*s.* 4*d.*; those of Winchester are at 21*s.* 2¾*d.*; the grants are at 23*s.*, the purchases at 22*s.* 2½*d.* Oats are dearer. The average price at Cambridge for entries between October and August is 12*s.* 2¼*d.*, that of the Oxford purchases is 17*s.* 7*d.* Eton prices are, as usual, high. The Winchester rate is 14*s.*, oatmeal showing a decided rise. Peas are dearer than might have been expected. Beans are at moderate prices in the Essex localities, dearer at Oxford, much dearer at Eton.

1671–2. Prices are throughout lower. The wheat averages of the Cambridge rents give 30*s.* 8*d.*; the bakehouse supplies, purchased in the latter part of the year, are at 28*s.* 9*d.* The Eton rents yield an average of 38*s.* 3*d.*; the purchases one at 37*s.* 3¼*d.*, fifteen separate entries being given. The Oxford average is 38*s.* 8*d.* The Winchester rent book is lost for this year. The grants are at 36*s.*, the purchases at 30*s.* 3*d.* There is but little fluctuation throughout the whole year. The Cambridge malt rents are lower, at 15*s.* 1*d.* So also are those of Eton, at 20*s.* 9¼*d.*, the College for once buying at higher rates than their rents, viz. 22*s.* 0¾*d.* The Oxford rents are unchanged through the year, at 20*s.* There is one Winchester rent at 22*s.*, that for Michaelmas; the grants being at 20*s.*, and the purchases at 17*s.* 0¼*d.* Oats are a good deal cheaper. At Cambridge they are dear at first, and the average on the year is 12*s.* 9½*d.* At Eton they are at 15*s.* 1*d.* At Winchester the average is 11*s.* 3¾*d.*, and the price of oatmeal is slightly reduced. Beans and peas are both at low rates.

1672–3. For this year and henceforth, I have put the price of the Winchester rents as post-dated in the College accounts into the average of the year to which they belong. The fact that they are post-dated, long suspected by me, was abundantly confirmed by the entries of 1673, and is demonstrated by the rest of the series to the close of the period. In this year, the last of a series of nine cheap years, the Cambridge rents are at 33*s.* 1¼*d.*, the prices rising towards the end of the time. The College made its bakehouse purchases in

August, and has to pay at a higher rate (34*s.* 2*d.*) than it receives. The Eton wheat rents are at 39*s.* 3½*d.*, the purchases at 38*s.* 10*d.* The Oxford rate is 40*s.* 8*d.* Portsmouth gives an assise on April 1 at 34*s.* The Winchester grants are at 32*s.*, the purchases at 29*s.* 4½*d.* The Winchester rents are at 30*s.* 10¾*d.* Prices are on the whole slightly higher. The Cambridge malt rents are at an average of 18*s.*, those of Eton are at 22*s.* 3½*d.*, while the purchases are at 21*s.* The Oxford average is 20*s.* 8*d.* The Winchester grants are at 20*s.*, the purchases at 19*s.* 2*d.*, while the rents are at 19*s.* 5½*d.* The quality of the wheat and barley crop was apparently high, and there is little trace of any concern as to the coming harvest. There are only a few entries of oats. They are rather dearer, 12*s.* at Cambridge, 14*s.* 3*d.* at Winchester. But on the other hand, oatmeal is little cheaper. Peas and beans are at moderate prices, but are a little dearer than before.

1673–4. The price of wheat is greatly enhanced. The average of the Cambridge wheat rents is 47*s.* 5¼*d.* The bakehouse makes only one purchase, a large quantity in June at 46*s.* 10*d.* The Eton average is 66*s.* 3*d.*, and the purchases, all dated, and extending from October 15 to September 23, give an average of 64*s.* 8¾*d.* At Cambridge, the highest price is at Lady Day; at Eton, Candlemas; and it is clear that a very sharp rise occurred in January. The same fact is noticeable at Oxford, where the average is 65*s.* 8*d.*, the price at Lady Day being 74*s.* There is an assise return from Portsmouth at 40*s.*, but this is on October 1, when the harvest was not so seriously discounted as it was later on. The Winchester grants are at 48*s.*, the purchases at 53*s.* 6*d.* The Winchester rents are at an average of 56*s.* 4½*d.* The price of malt is not so enhanced as that of wheat, for, as we have often noticed, a luxury is stinted when a necessary is dear. The Cambridge malt rents are at 23*s.* 6½*d.*, those of Eton at 28*s.* 1¾*d.*, while the purchases are at 25*s.* 5¼*d.* The Oxford averages are at 29*s.* 4*d.* The Winchester grants are at the same price as the purchases, at 24*s.* 6*d.*; the rents are at 25*s.* 5¼*d.* Oats are not so much enhanced in price, for, as I have observed before, the consumption of oats was mainly in the winter and early spring, and the rise in all kinds of grain is highest in all places at or about Lady Day. The average at Cambridge is 13*s.* At Eton they are very dear, at 22*s.* The Winchester average is 13*s.* 7½*d.* But the College records an oat rent on Lady Day, and the price is 18*s.* Oatmeal is dearer at 55*s.* Peas, of which only one entry is found, and as I know a December price, are cheap as far as the entry goes. But beans are dear. They are the same price at Eton and in Essex.

1674–5. Prices are a little lower. The Cambridge wheat rents give an average of 46*s.* 5*d.* But the bakehouse is judicious, buying all its supplies in April, when the market was declining, at an average of 36*s.* 8*d.* In Cambridge the highest price of the year is at Lammas, and this must have been a local scare, as it is not noticeable elsewhere. At Eton the average of the rents is 62*s.* 6½*d.*; of the purchases, which are numerous but all effected by the middle of April, the average is 59*s.* 5½*d.* Portsmouth has recorded two assises of this year, at six months' interval, with an average of 43*s.* The average at Oxford is 60*s.* 8*d.* The Winchester grants are at 64*s.*, the purchases at 53*s.* 3¾*d.* The rents in the same place are at 51*s.* 9¾*d.* Malt is dearer than it was the year before. The rents at Cambridge give an average of 26*s.* 8½*d.*, those of Eton are of 35*s.* 9¼*d.*, while the purchases are effected at 32*s.* 6*d.* The Oxford malt average is at 31*s.* 8*d.* The Winchester grants are at 30*s.* 4*d.*, the purchases at 27*s.* 6*d.*; the rents give an average of 28*s.* 3¾*d.* The alarm which causes the high average of wheat is not represented in the malt prices. Oats are a good deal dearer. The entries at Cambridge, numerous and dated, go from October to the end of January, then are resumed in June, when two purchases are made, and in September, when one lot is bought. The average is 15*s.* 4*d.* At Eton they are cheaper, but still dear, at 20*s.* The Winchester average is 14*s.* 6½*d.*, and the Lady Day oat rent at 12*s.* Meal is a little cheaper. Peas are cheap, but beans are still dear. I conclude that these two harvests were scanty, and that the seasons were unpropitious.

1675–6. From this year, and for fifteen consecutive years, the price of corn is low, sometimes very low. There are indeed a few years in this period in which there is a scarcity price, but on the whole the time must have been exceptionally favourable to the working classes, who had since 1650, and no doubt in consequence of the excessive prices of the five years 1646–50, obtained a permanent increase of wages, ranging from 35 to 50 per cent. The wheat rents at Cambridge are at 30*s.* 7½*d.*, prices declining to but little more than half in the summer compared with the rate of Michaelmas. A comparatively small quantity is purchased by the bakehouse in April at 30*s.* 2*d.* The Eton rate is 40*s.* 1¼*d.*, the purchases of the College being at 33*s.* 0¼*d.*, these being dated. The Oxford rate is 40*s.* 8*d.* The Winchester grants, a relic of the previous year's dearness, are at 54*s.* 4*d.*, the purchases at 33*s.* The Winchester rents are at 34*s.* 11¾*d.* The Cambridge malt rents give an average of 18*s.* 8¾*d.* The Eton malt rents are high, the average being 27*s.* 7*d.*, the purchases

being at 26*s.* 4½*d.* The Oxford rents are at 25*s.* 8*d.* The Winchester grants are at 20*s.* 6*d.*, its purchases at 20*s.* 11*d.*, while its rents are at 20*s.* 4¼*d.* The price of malt declines as the year advances. Oats are very varied in price. At Biggin, an early winter price, they are at 19*s.* 4*d.* At Cambridge, two of the fourteen entries being 'fen oats,' the average is 10*s.* 1½*d.* At Eton there is a price of 18*s.* But at Winchester the average is 10*s.* 8¼*d.* They are dearest at Bishop's Stortford, where they are at 21*s.* 4*d.* But I am convinced that these high prices were paid early in the agricultural year, and that it was some time before the goodness of the harvest was generally recognised. Beans are at natural prices as compared with wheat, and peas are cheap. Oatmeal is and remains almost permanently at higher prices.

1676–7. The average of the Cambridge wheat rents is 27*s.* 5*d.* The bakehouse purchases, 237 quarters, are bought at 27*s.* 3¼*d.* on an average, the price rising as the year advances. At Eton the average of the rents is 35*s.* 8¾*d.*, and of the purchases 36*s.* 2¾*d.*, the College purchasing in the month of August at greatly enhanced prices. At Oxford the average is 30*s.* 4*d.* Two purchases in October and November at Reading and Uxbridge are at corresponding prices with those of Eton. The Winchester grants are at 34*s.* 8*d.*, the purchases at 32*s.*; the Winchester rents are at 32*s.* 1*d.* The price begins to rise in May. The malt rents at Cambridge are at 18*s.* 6½*d.*, in Eton at 24*s.* 11½*d.*, the purchases at 24*s.* 8*d.* The Oxford average is 22*s.* The Winchester grants are at 24*s.*, the purchases at 20*s.* 9½*d.*, the rents at 21*s.* 1½*d.* The price then of the two principal kinds of grain is lower than the year before. Oats are on the whole also cheaper, and even oatmeal. The average at Cambridge is 11*s.* 10½*d.*, prices being registered from November to January, in April and August. The Winchester average is rather high, 16*s.* 4½*d.*, though one purchase is at 12*s.* Beans are practically unchanged in price, while peas are decidedly dearer.

1677–8. Prices are a good deal higher, this and the following year being the dearest in the period referred to above. The Cambridge wheat rents give an average of 40*s.* 9½*d.*, the bakehouse purchases, made in June and July, being at 39*s.* 6*d.* In Cambridge, the cheapest rate of the year is at Midsummer. At Eton the averages are at 55*s.* 5½*d.*, the price generally rising through the year till Midsummer, when it slightly falls. The average of the purchases is 48*s.* 7½*d.*, and here the dearest rate is in August. In Oxford the average is 50*s.*, the rate rising also. Two entries are found from Horstead Keynes and Wickham at corresponding prices. The Win-

chester grants are at 49*s.* 4*d.*, the purchases at 46*s.*, while the rents are at 51*s.* 3¾*d.*, the variation through the year not being considerable. The malt rent at Cambridge gives an average of 21*s.* 3¼*d.*, the Eton rents of 28*s.* 0¾*d.*, while the purchases, put together in the original, are at 28*s.* The Oxford malt rents are at 25*s.* The Winchester grants are at 27*s.*, the purchases at 25*s.* 6½*d.*, while the rents are at 25*s.* 6¼*d.* Oats are considerably dearer. At Cambridge the average is at 13*s.* 0½*d.*, at Eton 19*s.* 2¾*d.*, at Winchester 15*s.* 9*d.* Oatmeal at Winchester is a little dearer than in the previous year. It is cheaper at Oxford, but the entry is for November only. Beans are decidedly dearer, but peas are not so much raised in price.

1678–9. Wheat is higher than in the previous year. The Cambridge wheat rents are at 47*s.* 2¾*d.*, the highest price being at Lady Day. The average of the bakehouse purchases is at 40*s.* 3*d.* The Eton rents are at 60*s.* 6½*d.*, the purchases at 48*s.* 5*d.*, prices falling rapidly in the summer. The Oxford average is at 84*s.* 4*d.* There is an entry at Horstead Keynes at a very high price, and another at Portsmouth (October 1) at a price which is fairly agreeable with that of other localities. The Winchester grants are at an average of 55*s.* 1¼*d.*, the purchases at 51*s.* 3*d.* The rents give an average of 53*s.* 7¾*d.* But malt is cheaper than it was the year before. The Cambridge rents are at 20*s.* 2½*d.*, those of Eton at 26*s.* 5½*d.*, while the purchases, very numerous, but all apparently in the first half of the year, when prices were generally highest, are at 26*s.* 2*d.* The Oxford average is unchanged, at 24*s.* The Winchester grants are at 25*s.*, the purchases at 25*s.* 3½*d.*, while the rents are at 24*s.* 4½*d.* The price of oats is variable, but on the whole less than in the previous year. The Cambridge average is 12*s.*, that of Eton 17*s.*, that of Winchester 12*s.* 4½*d.*; a Lady Day oat rent being at 12*s.* Oatmeal at Winchester is unchanged. Beans and peas are decidedly cheap.

1679–80. Prices are falling. The wheat rents at Cambridge give an average of 35*s.* 10*d.*, the bakehouse purchases are at 35*s.* 11*d.* The Eton rents are at 44*s.* But the College makes a considerable purchase at 38*s.* 3*d.* The Oxford market supplies an average of 43*s.* The Portsmouth assise is at 33*s.*, the dates given being October 1 and April 1. The Winchester grants are at 56*s.*, this being a last year's liability. The purchases are effected at an average of 38*s.* 9*d.*, the rents are at 41*s.* There are no great fluctuations throughout the year, but generally the prices of wheat and malt are falling. The Cambridge malt rents are at 17*s.* 2¼*d.*; those of Eton are at 23*s.* 6*d.*, purchases being made at an average of 21*s.* 9¾*d.* The Oxford average

is 22*s*. The Winchester grants are at 19*s*., the purchases are at 19*s*. 9*d*., while the rents are at 19*s*. 3*d*. Oats are at a full price at Biggin, but are cheap at Cambridge, only 8*s*. 9*d*. on an average. But they are 12*s*. 9*d*. on the Winchester purchases. Oatmeal is a fraction cheaper. No peas have been found. But beans come from four localities, and the price is fairly uniform and quite proportionate. In all cases throughout this year, the general average, both that derived from the locality and that derived from the aggregate of localities, is heightened by Michaelmas prices, for the farmers or the public had not interpreted the amount of the home supply.

1680–1. All grain prices are slightly higher. The Cambridge corn rents give an average of 41*s*. 1½*d*., while the bakehouse purchases, made in the spring, are at 34*s*. 8*d*. The Eton corn rents are at 45*s*. 8*d*., the purchases at 42*s*. The Oxford corn rents are at 42*s*. 8*d*. The Portsmouth assise is the cheapest: taken on the first of October and the first of April, it is at 34*s*. The Winchester grants are at 40*s*., and the purchases at the same rate: the rents are also at 40*s*. The highest price of the year is at Midsummer. The Cambridge malt average is 18*s*. 3¼*d*.; that of Eton is 21*s*. 9¼*d*.; of the purchases, the same rate. The Oxford average is 19*s*. 4*d*. The Winchester grants are high, at 27*s*., the purchases at 21*s*. 2¾*d*. The rents are at 24*s*. 10*d*., the dearest of the series, owing to the high rate at Midsummer, some scare at this time having it seems been general. Oats are cheap in the Eastern Counties and dear at Winchester, the only two districts from which prices are supplied, though the Winchester oat rent is not high. Beans are a little dearer, but peas are cheap.

1681–2. There is a fall in the price of wheat, but all other kinds of grain are dearer. The wheat rents at Cambridge give an average of 32*s*. 3*d*., while the bakehouse purchases, in April and May, are at 31*s*. 2*d*. The Eton rate, 45*s*. 4*d*., is high; and the purchases, made at 36*s*. 1*d*., seem to imply that the general quality of the harvest was inferior, the quantity abundant. The Oxford average is 40*s*. 4*d*., and flour is cheap. The Portsmouth assise has been preserved for April at 30*s*. The Winchester grants are at 45*s*. 4*d*., the purchases at 38*s*.; while the averages of the rents are at 35*s*. 11¾*d*., the bakehouse, apparently, not having purchased prudently. The Cambridge average of malt rents is 21*s*. 7¼*d*., that of Eton is 28*s*., while the purchases are at 27*s*. The Oxford average is unchanged through the year at 26*s*. The Winchester grants are at 24*s*., the purchases at 27*s*. 0½*d*., the rents

being at 26*s.* 7½*d.* Winchester also buys a small quantity of barley at 24*s.* Oats are dear, 13*s.* 4*d.* at Biggin, 13*s.* at Cambridge, but 20*s.* 8*d.* at Eton, and 18*s.* 2*d.* at Winchester. The price of oatmeal is also very high, being surpassed by four averages only in the whole period. Beans are very dear everywhere, though cheapest at Cambridge, but peas are rather cheap.

1682–3. All kinds of grain fall slightly in price. At Cambridge the wheat rents give an average of 31*s.* 11½*d.*, the bakehouse purchase in April being made at 27*s.* 4*d.*, and the price being very uniform. At Eton the rents are at 46*s.*, the purchases at 40*s.* The Oxford average is at 43*s.* 8*d.* An assise at Portsmouth supplies a price of 22*s.* 8*d.*, and Johnson's Lands (property in the Eastern Counties purchased by a wealthy timber merchant at Deptford, two of whose daughters had married into noble families) are of 28*s.* The Winchester grants are at 40*s.*, the purchases at 37*s.* 8*d.*, and the rents at 38*s.* 10¾*d.* Johnson's estate buys barley at 19*s.* The malt prices at Cambridge are at an average of 21*s.* 6¾*d.*, the rates being very even, but falling a little as the summer comes on. The Eton average is 28*s.* 10¾*d.*, the purchases being effected by the College at 25*s.* 6*d.* The Oxford average is 26*s.* 8*d.* The Winchester grants are at 24*s.*, its purchases at 24*s.* 2*d.*, and the average of its rents at 24*s.* 11*d.* Oats are fairly cheap in Cambridgeshire, dear at Eton and Winchester, the latter giving an average of 16*s.* 4*d.* Oatmeal also is dear, the prices indeed of these two years being exceptionally high. Peas and beans are cheap in some of the Eastern Counties and Cambridge, but dear on the two Essex estates. On the whole, however, the year is one of comparative plenty.

1683–4. Prices are very little changed from those of the previous year. The wheat rents at Cambridge give an average of 32*s.* 2¾*d.*, the price rising considerably after Lady Day. The bakehouse is consequently caught, for the purchases made in the summer raise the average to 35*s.* The Eton average is 38*s.*, this corporation having now dropped most of its extraordinary rent days, as these affected only a few small estates. It buys at 32*s.* 9½*d.* The Oxford average is 36*s.* 8*d.*, but an account of Lord Lovelace, one of Johnson's sons-in-law, gives 32*s.* also as an Oxford price. The Winchester grants are at 46*s.* 4*d.*, the purchases at 35*s.* 10*d.* The rents are at 38*s.* 9½*d.*, the rise towards the later summer being here very marked. There is also a purchase in Johnson's accounts at 48*s.*, which must have been late in the year. The price of malt is more steady. The Cambridge malt rents are at an average of 18*s.* 9½*d.*, those of Eton at 24*s.* 11*d.*, the

purchases at 23*s.* 5*d.* The Oxford rents are at 25*s.* 8*d.* The Winchester grants are at 25*s.*, the purchases at 22*s.* 7½*d.*, the rents at 21*s.* 11*d.* Oats are very cheap at Cambridge, very dear at Eton, and high (16*s.* 1*d.*) at Oxford. The Winchester average is 15*s.* 10*d.* Oatmeal is still dear. The Johnson estate gives a price of rye, which is low. Beans and peas are at proportionate prices to wheat.

1684–5. Wheat is a good deal dearer, the price not varying materially during the whole agricultural year. The Cambridge average is 42*s.* 4*d.* The bakehouse buys at 37*s.* 2*d.* The Eton wheat rents are at 50*s.* 8*d.*, the purchases at 46*s.* 6*d.* The Oxford wheat rents are at 47*s.* 4*d.* The Winchester grants are at 46*s.*, the purchases at 49*s.* 2*d.*, the rents at 48*s.* 8*d.* The tendency in Cambridge and Winchester is downwards towards the end of the year, the highest price being at or about Lady Day. Malt prices are higher, but not much higher. The Cambridge average, the changes during the year being slight, is 21*s.* 4¼*d.*, that of Eton 27*s.* 6¾*d.*, while Eton purchases are at 27*s.* The Oxford average is 26*s.* The Winchester grants are at 28*s.*, the purchases at 25*s.* 9*d.*, the rents at 26*s.* 4½*d.* Oats are dearer in all places; 16*s.* at Biggin, 14*s.* 0½*d.* at Cambridge, 20*s.* 6*d.* at Eton, 16*s.* 5*d.* at Winchester. But oatmeal is a little cheaper. Beans and peas are dear, the latter so dear at Winchester that I am sure they must be garden peas.

1685–6. Six years of very low prices occur, beginning with this year. The Cambridge wheat rents give an average of 25*s.* 6¼*d.*, the price rising slightly at the end of the year; the bakehouse purchases, indicating a similar increase, at an average of 25*s.* 4*d.* The Eton average is 36*s.*, the purchases being made at 31*s.* 4*d.* The Oxford average is 32*s.* 4*d.* The Winchester grants, a relic of last year's prices, are at 56*s.*, the purchases at 30*s.* 4*d.*, while the rents are at 31*s.* 7*d.* Wheat is 23*s.* 1½*d.* at Cuckfield in September, and 22*s.* on April 1st at Portsmouth. There is a small purchase of barley at a high rate in September at Winchester. Malt rents give an average of 18*s.* 4*d.* at Cambridge, of 26*s.* 2¾*d.* at Eton, where purchases are made at 23*s.* 6¼*d.*, at 24*s.* in Oxford. The grants at Winchester are at 26*s.* 10*d.*, the purchases at 26*s.* 7*d.*, the rents at 26*s.* 8½*d.* The fall in malt is not so considerable as that in wheat, but we have often recognised the fact that the cheapness of wheat by no means implies the cheapness of other kinds of grain. In Cambridge, oats are very cheap, being only 8*s.* 9*d.*; at Eton they are, as usual, dear. The average at Winchester is 15*s.* 8*d.*; and at this place oatmeal is dear, though the average is lowered by a London purchase, which is, strange

to say, at an inn. Beans are dearer beyond proportion. Peas have not been found, for, as in the case last year, the Winchester peas are plainly garden produce.

1686–7. The price of wheat is rather higher. The wheat rents at Cambridge give an average of 28*s.* 8½*d.* The bakehouse buys its whole year's stock in March at 26*s.* 4*d.* The Eton average is 36*s.* 7½*d.*, while it purchases at 35*s.* 2½*d.* The Oxford rate is 33*s.* 4*d.* The Portsmouth assise on October 1, the cheapest period of the year, for prices increase slightly till Midsummer and then fall, is at 28*s.* The Winchester grants are at 33*s.* 4*d.*, the purchases at 35*s.* 4¾*d.*, the rents at 36*s.* 1¾*d.* At Winchester the Michaelmas and Midsummer prices are at the same rate, the highest price being at Lady Day. It is probable that the crop was underestimated and turned out to be better than was expected. The Cambridge malt rents give an average of 18*s.* 5¼*d.* Those of Eton are at 24*s.* 5¼*d.*, while the purchases are effected at 22*s.* 11*d.* The Oxford average is 23*s.* 4*d.* The Winchester grants are at 23*s.* 6*d.*, the purchases at 23*s.* 4*d.*, the rents at 23*s.* 3½*d.* There is a purchase of barley at Winchester at 24*s.* Oats are 12*s.* at Cambridge, 18*s.* at Eton, and at an average of 14*s.* 3½*d.* at Winchester. I have included with some misgiving a considerable purchase at a London inn at a high rate. Meal is a little cheaper. Peas have not been found. Beans are dear, and I have not ventured to exclude the Winchester entry, though I have a small purchase made at a London inn.

1687–8. All kinds of grain are cheaper. The Cambridge wheat rents give an average of 21*s.* 1*d.*, the price sinking slowly towards the summer. The bakehouse buys at 21*s.* 4*d.* The Eton average is 37*s.*, while it purchases at 34*s.* The Oxford average is unchanged, at 27*s.* 4*d.* The Portsmouth assise on October 1st is 25*s.* The Winchester grants are at 40*s.*, the purchases at 26*s.* 2¾*d.*, the rents being at 27*s.* 1¾*d.* Here also the continuous fall noticed in Cambridge is also discernible. Malt at Cambridge is very cheap, the average of the rents being only 15*s.* 10¼*d.* At Eton the average is 22*s.* 10¾*d.*, the purchases being made at 20*s.* 6*d.* The Oxford rate is the highest. Here it is unchanged, at 24*s.* The grants at Winchester are at 19*s.*, the purchases at 19*s.* 9¼*d.*, the rents at 19*s.* 3¾*d.* Oats are cheaper, 13*s.* 4*d.* at Biggin, 11*s.* 3*d.* at Cambridge, 11*s.* 6*d.* at Winchester, 16*s.* 9*d.* at Eton. Here I am compelled to exclude a London inn change, for I find it is always at the same rate. Meal is considerably cheaper. Peas and beans are cheap. Here again I am constrained to exclude certain entries of peas and beans.

1688–9. In this and the two following years I have printed, as a specimen of the manner in which the King's College, Cambridge, corn rents were assessed, the names of the several estates from which they arose. They are not a rent-roll of the College property, for this corporation rarely gets its rents in on the day when they are due, and therefore constantly registers considerable arrears. It will be seen that seven different values are given. The general average of the corn rents is 22*s.* 9½*d.* The bakehouse buys in September at 21*s.* The Eton rents and purchases are at the same rate, 25*s.* The Oxford average is 26*s.* The Winchester grants are at 28*s.*, the purchases at 22*s.* 8*d.* Only one rent is preserved, that of Michaelmas at 21*s.* 4*d.*, in all other localities the cheapest of the year. On the other hand, the Portsmouth assise on April 1st is 22*s.* The average from these five localities, none of them differing much, is 23*s.* 9¼*d.*, the lowest price since 1592. Now I have registered a small quantity at Cuckfield, bought in December at 50*s.* This is not seed; the time of the year precludes the notion, to say nothing of the fact that the low price universally indicates a good crop both in quality and quantity, an inference further assisted by the close price of the maxima and the purchase prices. It is bought at or near the dearest time of the year, but is more than double that rate. I am convinced therefore that the entry contains an error in figures in the original MS. The Cambridge malt rent is also very low, 14*s.* 2*d.*; that of Eton is 20*s.* 5¼*d.*, the purchases being made at 19*s.* This is also the Oxford average. The Winchester grants are at 17*s.*, the purchases at 16*s.* 11½*d.*, the solitary rent of Michaelmas at 17*s.* It is noteworthy that at Cambridge, Eton, and Oxford, the Michaelmas rent is at the highest price of the year. Oats are cheap; 8*s.* 6*d.* at Cambridge, 16*s.* at Eton, 10*s.* 10*d.* at Winchester, though oatmeal is rather dearer. Beans are cheap at Cambridge and Winchester, but the peas I suspect are again garden produce.

1689–90. Prices are still very low, though higher than in the previous year. The Cambridge wheat rents give an average of 26*s.* 3*d.*, and the bakehouse purchases were effected in July when prices were at their lowest, at 24*s.* 4*d.* The Eton average is 35*s.*, the purchases being made at 29*s.* 4*d.* The Oxford average is 36*s.* 4*d.* The assise at Portsmouth, on June 1, is 2*s.* The Winchester grants are at 32*s.*, the purchases at 32*s.* 6*d.* The rents are lost for this year. The highest prices of the year are at Lady Day. Malt is cheaper than in the previous year. The Cambridge rents give an average of 12*s.* 3*d.*, and the crop of barley must have been abundant and of good

quality. The Eton price is at the same rate, 20*s.*, all the year through, and the purchases are made at 18*s.* 4*d.* The Winchester grants and purchases are each at 17*s.* Oats are cheap at Cambridge and Winchester, and not very dear at Eton. A small quantity of meal in one locality is dear, and raises the average by comparison with the Winchester price. Beans are cheap. Peas, found at Winchester only, are rather dearer.

1690–1. Prices are lower again. The Cambridge corn rents are at 23*s.* 11*d.*; the bakehouse purchases, again made in the cheapest market, are at 21*s.* 8*d.* The Eton average is 33*s.*, the College purchasing at 30*s.* 2*d.* The Oxford rate is 30*s.* 4*d.* The Portsmouth assise is at 25*s.* in October, 34*s.* in April. The Winchester grants are at 32*s.*, the purchases at 28*s.* 6*d.* The rents, which are found this year, give an average of 27*s.* 6*d.*, the price being low at the end of the agricultural year. The price of malt is lower than any experience since 1620. The average of the Cambridge malt rents is 11*s.* 4½*d.*; those of Eton 18*s.* 0¼*d.*, while the purchases are at 16*s.* 4*d.* The Oxford average, unchanged during the year, is at 16*s.*, but New College purchases at 14*s.* 6*d.* The Winchester grants are at 15*s.*, the purchases at 15*s.* 11*d.*, and the rents, so the record informs us, were at 15*s.* for the whole year. Oats are low: 8*s.* 7½*d.* at Cambridge; 11*s.* 3½*d.* at Winchester, the oat rent being 10*s.*; 13*s.* 4*d.* at Maidenhead; 15*s.* 7*d.* at Eton. Meal is rather dear, for the same reason as that given in the year before. Peas are not found. Beans are cheap.

1691–2. There is a considerable rise, though the price of wheat is still below the average. The Cambridge wheat rents are at 34*s.* 2*d.*, prices rising towards the end of the year. Hence the bakehouse purchases, made in July, are at 34*s.* 8*d.* The Eton average is 41*s.* 6*d.*, and the purchases are again unfavourable, at 47*s.* 1*d.* The Oxford average is 40*s.* The average of the Portsmouth assises is 34*s.* The Winchester grants are at 34*s.* 8*d.*, the purchases at 41*s.*, the rents, the highest of any, being at 42*s.* 3*d.* It is probable, indeed almost certain, that the prospects of the coming harvest were unsatisfactory, and that the harvest season was wet. Malt is also dearer. The Cambridge rents are at 13*s.* 11*d.*; those of Eton at 20*s.*; while the purchases are again unfavourable, at 20*s.* 4*d.* The Winchester grants are at 21*s.* 6*d.*, the purchases at 18*s.* 1*d.*, the rents at 20*s.* The harvest in the southern counties was much more unfavourable than in the eastern. The Oxford rents are at 18*s.* Oats again rise in price. The Cambridge average is 12*s.* 7½*d.*; that of Eton 18*s.* 8*d.*; that of

Winchester 12*s.* 8*d.* There is no material difference in the price of meal. Peas have not been found. Beans are at a moderate price, but are rising.

1692–3. The series of cheap years is now over, and high prices prevail as a rule to near the end of the century. The average of the Cambridge wheat rents in this year is 46*s.* 5½*d.*, the price rising rapidly as the year goes on. The bakehouse purchases are effected at 49*s.* 4*d.* The Eton average is 53*s.*, and the College, again unlucky or negligent, buys at 60*s.* 7*d.* The Oxford average is 52*s.* The Portsmouth assise in October is 44*s.*, and a large quantity of wheat is bought at Cuckfield at 48*s.* The Winchester grants are at 44*s.*, the purchases at 51*s.* 6*d.*, while the rents give an average of 52*s.* 2*d.*, the price being highest on May Day. Malt does not rise so considerably, but is still dear. The average at Cambridge is 20*s.* 2¼*d.* The average price of the Eton rents and purchases, not differing materially, is 25*s.* 10*d.* The Oxford average is 24*s.* But New College, which is beginning to buy and brew for itself, purchases at 25*s.* 6¾*d.* The Winchester grants are at 29*s.*, the purchases at 25*s.* 3*d.*, the rents at 26*s.* 0¼*d.* Oats are also dearer. The Cambridge average, taken from all four quarters of the year, is 16*s.* 1½*d.* Purchases are made in Cuckfield at 15*s.* 6*d.*, in Eton at 20*s.*, and at Hurley at 20*s.* The Winchester average is 17*s.* 6*d.* Meal is not however much changed in price. Beans fall at Cambridge towards the end of the year, but peas at Winchester are excessively dear. They are probably white.

1693–4. After 1661, this is the dearest year of the period. I may say that now, when social questions were being considered, the seven bad harvests of William the Third's reign were frequently alluded to in contemporaneous and immediately subsequent literature. The corn rents at Cambridge give an average of 53*s.* 2¼*d.* But the agent of the bakehouse was more prudent or more fortunate this year. He put off his transactions till July, the cheapest time of the year, as the prospects of the next harvest became brighter, and got his wheat at 43*s.* 8*d.* The average at Eton is 77*s.* 8*d.* Here again, though no date is given for the principal purchases, we must conclude either that the corporation put up with an indifferent quality or that they bought prudently. One purchase in March is at 57*s.* 4½*d.*, Lady Day being the dearest of the two days, and another at 63*s.* 8*d.* The Oxford average is 68*s.* 8*d.*; that of Portsmouth is 65*s.* The Winchester grants are at 60*s.*, the purchases at 59*s.*, and the rents at 66*s.* 2½*d.* In all these places, except Cambridge, the Lady Day rate is the highest of the year. But the evidence from Cambridge and

Winchester shows that the bad character of the harvest was early discovered. The price of malt, though enhanced, is not so seriously increased. The Cambridge average is 23*s.* 8¼*d.* The Eton average is 31*s.* 5¼*d.*, while the College purchases at 31*s.* There is a long series of prices between February and May of Lord Lovelace's purchases, which are at an average of 31*s.* This nobleman had a house near Oxford, but I cannot determine that these are Oxford prices. The Oxford rents in malt are unchanged through the year, at 30*s.* 8*d.* New College purchases at 28*s.* 6*d.* The grants at Winchester College are at 28*s.*, the purchases at 29*s.* 10*d.*, the rents at 29*s.* 9¾*d.* Oats are not so dear as one might expect; 14*s.* at Cambridge, 20*s.* at Eton, 17*s.* at Winchester; and oatmeal is cheaper than last year. Beans are not very dear. Peas at Harting and Winchester are at very high prices.

1694–5. Prices are lower. The Cambridge rents are at 31*s.* 1½*d.*, the lowest price being at Lady Day, and the market rising rapidly afterwards. The bakehouse purchases are at 29*s.* 8*d.* The Eton average is 42*s.* 8*d.* But the College buys at 51*s.* The Oxford rents are at 40*s.* The Winchester grants are at 46*s.* 8*d.*, the purchases at 40*s.*, the rents at 39*s.* 2*d.*, the lowest prices here being at Midsummer. Besides these corn rents and purchases, four other entries have been discovered, two of which are dated in May and October, viz. Harting and Portsmouth. In both these the price is 30*s.* At Cuckfield and Coombe it is 36*s.* As regards malt prices, the average rent at Cambridge is 17*s.* 6¼*d.*, at Eton 24*s.* 10¾*d.*, the price falling rapidly to 21*s.* 4*d.* at Lady Day, while the purchases are at 23*s.* 6½*d.*; the Oxford rents are at 24*s.* 6*d.* New College however does not buy till after the high Michaelmas prices are past, and gets its stock at 19*s.* 4½*d.* The Winchester grants are at 24*s.*, the purchases at 21*s.* 8½*d.*, the rents at 21*s.* 4½*d.* In both wheat and malt the average is enhanced by the comparatively high prices which ruled from September till November. Oats are cheap everywhere but at Eton; 11*s.* at Cambridge, 9*s.* 11*d.* at Harting, and 13*s.* 10*d.* at Winchester. But the price is highest as before in the late autumn. Meal is cheap. Beans are rather dear. But a load of peas is sold at Harting at a cheap rate.

1695–6. Prices rise, especially as the year goes on, the general average being lowered by purchases or sales at lower rates than the maxima of the markets. Thus the Cambridge wheat rents give an average of 50*s.* 4¼*d.* But the bakehouse buys in July at 38*s.* 8*d.*, the lowest Cambridge price in the rents being at Lammas. At Eton the

average is 70*s.* 6*d.*, but the College buys at 53*s.* 4*d.* The Oxford rents are at 62*s.* 4*d.* The Winchester grants are at 60*s.*, the purchases are at 60*s.* 8*d.*, and the rents are at an average of 60*s.* 3½*d.*, the prices falling in the summer. On the other hand, Harting sells in August at 34*s.* 8*d.*, and the Portsmouth assise, given in October, April, and June, is 36*s.* I conclude therefore that the crop was deficient in quality rather than in quantity, and that the rents paid to the Colleges were at higher values than the farmer could ordinarily get for his produce; that the harvest was not scanty, but was badly housed. Malt rents are higher: the average at Cambridge is 21*s.* 11½*d.*; at Eton 27*s.* 11¼*d.*, the College buying at 27*s.* 5½*d.* The Winchester grants are at 25*s.* 6*d.*, the purchases at 25*s.*, while the rents are at 25*s.* 3*d.* Some malt is bought at one place at 16*s.* The Oxford average is 29*s.* 4*d.* Oats are rather dear: at 14*s.* 3*d.* in Cambridge; at 16*s.* in Eton; at 16*s.* 6½*d.* at Harting; at 17*s.* 2*d.* in Winchester. Meal is also rather dearer. Beans are very dear.

1696–7. There is no material difference between the price of this year and that of the last, though rates are a little higher. The Cambridge wheat rent gives an average of 48*s.* 3*d.* But the bakehouse buys in July, when the highest prices of the year are being demanded, and so pays at the rate of 51*s.* 8*d.* The Eton average is 55*s.*; but here again the College buys at a dearer rate than its rents, 59*s.* 2*d.* The Oxford corn rent is lower than the last year, being 50*s.* Portsmouth gives only one assise, that of October, which is high, 44*s.* The Winchester grants are at 48*s.*, the purchases at 56*s.* 6*d.*, while the rents are at 55*s.* 7¾*d.*, the Hampshire rents being the dearest. Barley is found at Harting, the price being 20*s.* in November. The Cambridge malt rents are at 19*s.* 1¼*d.*; those of Eton are at 26*s.* 8*d.*, the purchases being at 27*s.* 1*d.* The Oxford average is 24*s.*, but New College buys at 22*s.* 4*d.* The Winchester grants are at 31*s.* 10*d.*, the purchases at 27*s.* 5*d.*, the rents at 27*s.* 10¾*d.* It is clear that while the harvest was generally unsatisfactory, it was worst in the southern counties. Oats are cheap at Cambridge, the average being 11*s.* 3*d.* Nor are they dear at Eton or Winchester, the price at the former being 16*s.*, at the latter 13*s.* 4*d.*; and at Lady Day the Winchester oat rent is at 14*s.* But at Harting they are cheap in October and December, dear afterwards, if indeed we are to take the load at five quarters. The price of meal is not very high. Beans and peas are at proportional prices. There are two entries of tares, with an average of 30*s.*

1697–8. Prices are very much higher. The wheat average at

Cambridge is 57*s.* 3¼*d.*; the bakehouse purchases, made in June, being at 54*s.* 2*d.* Eton gets its rents at an average of 67*s.*, and makes its purchases at 66*s.* 3*d.* The Oxford rate, uncharged through the year, is at 65*s.* 4*d.* The Portsmouth assise, taken in October and May, is at an average of 61*s.* In general the price rises slightly as the year goes on. At Winchester, the grants are at 58*s.*, the purchases at 62*s.* 8*d.*, the rents at 63*s.* 6*d.* The Cambridge malt rents are at 22*s.* 7¼*d.*, those of Eton are at 30*s.* 3*d.*, the purchases being at 30*s.* 4*d.* The Oxford malt rents are at 28*s.* 8*d.* New College buys its very considerable purchases at an average of 28*s.* 11*d.* The Winchester grants are at 33*s.* 6*d.*, its purchases at 30*s.* 2½*d.*, while its rents are at 29*s.* 11¼*d.* Oats at Cambridge give an average of 11*s.* 6*d.*, at Harting of 11*s.* 3*d.*, at Winchester of 14*s.* 4*d.*, the oat rents at this locality being 12*s.* 6*d.* But the Eton price is very high, 22*s.* Oatmeal at Winchester is however cheap. Beans are at moderate prices, and peas are at nearly the same rate. The entry of 'boiling peas' at Harting is of garden produce. The year was one of general scarcity.

1698–9. Prices are a little lower, declining generally as the year goes on, this being the last year of very high prices. The average of the Cambridge corn rents is 52*s.* 7¼*d.*, the bakehouse buying, as usual in summer, at 45*s.* 4*d.* Cuckfield gives a price at 52*s.*; Eton an average of 68*s.* 4*d.*, with purchases at 61*s.* 4*d.* The sales at Harting are at an average of 52*s.* 7½*d.* The Oxford average is 66*s.* 8*d.*, and the assise at Portsmouth, taken in May only, when prices are falling, is 50*s.* The Winchester grants are at 64*s.*, the purchases at 60*s.* 6*d.*, the rents being at 63*s.* 1*d.* Malt is a good deal dearer. The Cambridge rent average is 29*s.*, that of Eton is 37*s.* 9¼*d.*, the purchases for the College being made at 37*s.* The Winchester grants are at 34*s.*, the purchases at 35*s.* 5*d.*, the rents at 35*s.* 7*d.* The Oxford average is 34*s.* 8*d.*, and New College makes its purchases at 33*s.* 5¾*d.* Only four years during the whole period, 1636 and the three famine years 1647–9, give higher prices than this. Oats are dear everywhere; 16*s.* 4*d.* at Cambridge, 23*s.* 8*d.* at Eton, 17*s.* 8¾*d.* in London, 18*s.* 8*d.* at Winchester, where the Michaelmas oat rent, the cheapest time of the year, is at 16*s.* Meal however is not very dear. Peas have not been found, and beans at Cambridge are at moderate and uniform prices.

1699–1700. There is a substantial fall in prices this year. The Cambridge wheat rent is at an average of 37*s.* 0¼*d.*; the bakehouse purchases, this year made in August, give 32*s.* The Eton average is 49*s.*, the purchases being effected at 44*s.* 6½*d.* The Oxford average

is 50*s*. The Portsmouth assise in April, generally the cheapest time of the year, is 38*s*. The Winchester grants are at 46*s*. 8*d*., the purchases at 43*s*. 8*d*., the average of the rents being 42*s*. 10¼*d*. Two entries at Foxcomb give an average of 58*s*. 5½*d*., the dearest price of the year. Malt also has not fallen proportionately. The rent average at Cambridge is 25*s*., at Eton 36*s*. 5¼*d*., the purchases being made at 33*s*., at Oxford 34*s*., the grants at Winchester being at 27*s*. 6*d*., the purchases at 31*s*. 4*d*., and the rents at 30*s*. 4*d*. Some malt is sold at Harting in November, the dearest time of the year, at 32*s*. New College buys at an average of 32*s*. 6¼*d*. Some seed barley is bought at 30*s*. Oats at Cambridge give an average of 13*s*. 8*d*., in Winchester of 12*s*. 1½*d*. A large quantity is bought at 10*s*. in November at Foxcomb, and another quantity in London at an average of 14*s*. At Eton, as usual, the price is high. Oatmeal is a fair price. Peas and beans are rather dear, in some localities very dear. Vetches are found at Foxcomb, and one at a moderate price.

1700–1. The price of all kinds of grain falls considerably. The Cambridge corn rents are at an average of 29*s*. 4½*d*., the bakehouse purchases being effected in November at 26*s*. 8*d*. The Eton rents are unchanged through the year, at 38*s*., and the purchases are at 33*s*. 3*d*. The Oxford rents are also unchanged, at 36*s*. The Portsmouth assises in October and June give an average of 27*s*. Besides these, the price at Cuckfield is 27*s*.; at Foxcomb, seed wheat is at 30*s*. The Winchester grants are at 44*s*., the purchases at 35*s*. 8*d*., the rents at 36*s*. 5¼*d*. The Cambridge malt rents give an average of 17*s*. 7¾*d*.; the Eton rents an average of 27*s*. 4*d*., and the purchases are made at 24*s*. 1*d*. The Oxford average is 23*s*., and New College buys between October and March at 21*s*. 5¼*d*. The Winchester grants are at 22*s*., the purchases at 22*s*. 5½*d*., and the rents at 21*s*. 9¾*d*. Oats are cheap in Cambridge (9*s*. 6*d*.) and London (12*s*.); at Eton they are dear, 17*s*. 6*d*.; and at Winchester rather dear, 15*s*. 8*d*., the Lady Day oat rent being at 14*s*. Peas are not found, and beans at Cambridge only, at 19*s*.

1701–2. A further considerable fall occurs. The Cambridge wheat rent is at 23*s*. 4¼*d*., and the bakehouse purchases at 21*s*. 4*d*. The Eton average is 31*s*. 8*d*., and the purchases at 27*s*. 11*d*. The Oxford average is 28*s*., and that of the Portsmouth assise in October and April is unchanged at 24*s*. The Winchester grants are at 37*s*. 4*d*., the purchases at 28*s*. 4½*d*., and the rents at 28*s*. 9½*d*. Malt on the whole is at last year's prices. The Cambridge rents give an average of 15*s*. 8¼*d*., but that of Eton is 26*s*. 8*d*., the purchases being made at 26*s*. 3*d*. The Oxford average is 22*s*. 8*d*. The Winchester grants

are at 25*s.*, the purchases at 23*s.* 6*d.*, and the rents at 23*s.* 8½*d.* Some purchases are made at Harting which give an average of 20*s.* 5¾*d.*, and some seed barley at Foxcomb is bought at 17*s.* 2*d.* Oats are cheap; 10*s.* 1½*d.* at Cambridge, 11*s.* 4*d.* at Harting, 14*s.* 4½*d.* at Winchester, where the Lady Day oat rent is at 14*s.* Oatmeal is cheap at Winchester. Beans, peas, and vetches are found, each article in one locality.

1702–3. Prices are on the whole a little higher. The Cambridge wheat rents are at an average of 24*s.* 11½*d.*, the bakehouse purchases being effected at 24*s.* 4*d.* The Eton average is 30*s.* 6*d.*, but the College buys at 34*s.* 7¾*d.* The Oxford average is 27*s.* Portsmouth gives an October assise of 24*s.* The Winchester grants are at 28*s.*, the purchases at 29*s.* 6*d.*, and the rents give an average of 29*s.* 5½*d.* Besides these, Foxcomb supplies a series. It buys seed-wheat at 40*s.*, but the average of all its purchases is only 29*s.* The Cambridge malt average is 14*s.* 8*d.*, that of Eton is 25*s.* 4¼*d.*, the purchases being made at 24*s.* 2*d.* The Oxford average is at 17*s.* 9*d.* The Winchester grants are at 22*s.*, the purchases at 23*s.* 3½*d.*, while the rents are at 19*s.* 1½*d.* There is also a price of 21*s.* 6*d.* at Harting. Oats are 10*s.* at Cambridge, 15*s.* 10*d.* at Eton, 10*s.* at Foxcomb, 14*s.* 8½*d.* in London, and 11*s.* 8*d.* at Winchester, the oat rent at Michaelmas being 12*s.* Oatmeal fails me at Winchester for the first time since the domestic accounts began, but it is very cheap in London. Beans are cheap in Cambridge and London, dear at Winchester. Seed-peas are a full price at Foxcomb, and tares in London are also dear.

I have now to deal with Houghton's prices, printed weekly in the two folio volumes entitled Collections for Husbandry and Trade. In extracting these figures, I have taken note of those only which show a change in each successive quarter of the year. Sometimes these changes, especially in dear years and at important corn markets, are very numerous. Thus in 1693 there are no less than forty-five variations in price at Kingston-on-Thames, in one of the quarters every week. Sometimes, especially in remote places, there is no change for the whole year. The variations of the market are far greater in the case of wheat than in that of any other kind of grain.

The first number of Houghton's weekly paper is dated March 30th, 1692, and it is continued till June 27 in the

same year. He tells us in his first number that he put out the proposals for the publication in November 1691, and that he intended to obtain if possible a large correspondence on the subject. His design is to give the highest market prices for wheat, barley, malt, oats, rye, beans, and peas, with certain other articles, with the object of informing dealers as to prices. He gives the names of twenty-eight persons who strongly recommended his project, among them being Evelyn, Pepys, Plot, Hans Sloane, Chamberlain of Land Bank notoriety, and Halley the astronomer. After June 27 he gave it up for a time, owing as he tells us to the expense attending his publication. But in summer and autumn he was encouraged by several persons agreeing to suscribe a guinea a year towards the paper, by the prospect of getting more subscribers, and by the likelihood of his being able to sell it at a penny. It commences anew on January 20, 1963, and is continued to September 16, 1703, when he announces that his ordinary business has so much increased, that he cannot spare the time necessary for the due editing of his periodical. As time goes on, he invites advertisements.

Each number contains a short article on some matter in natural history, agriculture, manufactures, business, geography, social economy, and the like. One series of papers is on stock-jobbing, as it was practised in his day, and time-bargains. In short, Houghton was a person of much general information for his times. His essays were frequently reprinted during the eighteenth century; and till such time as modern science began with Priestley, Cavendish and others, they were looked on as important authorities. The price lists and advertisements, the latter indexed, had only an ephemeral interest.

The information supplied him is evidently from local correspondents, to whom in return for information he sends copies of his publication. It is very likely that he obtained many more returns than those which he records, and that he selected those which he deemed most valuable to men of business and

others. He always heads his columns with 'best,' and he insists that he records only the maximum price. Thus for instance, under date of April 6, 1694, he says, 'At Brentford, Kingston, etc. there are good sorts of wheat to be bought, but my price is topping.' And again on June 8, when he gives a quotation at 10*s.* at Brentford, he notes that most of the wheat was sold at 8*s.* 6*d.* the bushel. He always quotes wheat, rye, beans, and peas by the bushel; barley, malt, and oats by the quarter.

Houghton is particular in requesting his correspondents to send him any amount of local measures, and in one of his numbers (No. 26) he gives a statement of such local measures. But he reduces his information to the Winchester bushel of eight gallons, or the quarter of eight bushels. Unfortunately he gives but little contemporary information on the seasons, though he states that the bad harvest 1693–4 was due to wet, and that the scarcity was excessive in France.

I have drawn the averages from all the entries of the eight different kinds of grain, the facts of which are printed in vol. vi. pp. 101–198, but I have not printed these averages. There are during the twelve years, of which the first two are imperfect, 4864 variations in the price of wheat, 3981 of barley, 3073 of malt, 3635 of oats, 2851 of rye, 2494 of beans, 2364 of grey peas, and 2020 of white peas. Thirty-eight localities supply information for the first year, 63 for the second, 56 for the third, 60 for the fourth, 52 for the fifth, 53 for the sixth, 56 for the seventh, 55 for the eighth, 53 for the ninth, 48 for the tenth, 50 for the eleventh, and 48 for the twelfth. My reader will therefore conclude that the printing of all these averages would have occupied a considerable space. It was however necessary to draw them. When the number of localities is most numerous, Houghton's correspondents had been slackening, or had ceased to communicate with him. In this case he puts another place in. He gives space only when he selects for forty-eight. Hence in two of his years the replies sent him are unbroken. He gets information as far north as Carlisle, Berwick, and Newcastle,

in one year even from Edinburgh, from Falmouth and Pembroke in the south-west, from Exeter, Southampton, Chichester, and Canterbury in the south. But his most important centres are the Home counties, the East, and the Midlands.

All the localities give the price of wheat, and most of them of barley, malt, and oats. But the other four kinds of grain are by no means of equal distribution. In some districts rye is never quoted, in others no price of beans is given. Those which supply no beans often have grey peas. White peas are found most rarely. Every kind of grain however is found in London. There are parts of England, for example the chalk district of Hampshire, where beans are never grown now. From a number of such particulars I concluded that the prices of the returns are of produce from the district only, unless of course the market was a central one and of considerable importance.

It is obvious that the results from Houghton's entries are best dealt with by dividing the country into districts, having regard to the circumstances of the time. One of these will be the valley of the Thames and its greater affluents, with certain places such as Hitchin and Wycombe near it. The water-way of the Thames, made navigable now as far as Lechlade, the obstacles between Burcot pier and Oxford having been removed in the seventeenth century after repeated failures, was extensively used for heavy goods, carried up and down steam in flat-bottomed barges, the cost of such carriage, as I shall show hereafter, having been very low. The next district is the Eastern Counties, chiefly Cambridgeshire, Bedfordshire, Essex, parts of Hertfordshire, Suffolk, Norfolk, and Huntingdonshire. The Midlands are less definite, but will comprise the counties west of those last named, generally between the Trent and the Thames. The South is the range from Kent to Devonshire, and includes some Surrey markets. The South-west includes Falmouth, Plymouth, Bristol, and Pembroke, with the valleys of the Severn and the Wye. The North

contains the markets north of the Trent, and will include Liverpool. According to the rule laid down in this analysis, out of the four statutable corporations in which corn rents were to be established by Act of Parliament, Oxford and Eton would be in the Home division, Cambridge in the East, and Winchester in the South.

Speaking generally, prices are highest in the Home division, that is, the parts of England through which the water-way of the Thames and its affluents passes. Next comes the Southern district below the Thames, from Rochester to Exeter. Then come the Eastern Counties, in which grain was cheaper than elsewhere to the days of Arthur Young[1]. Next the South-west, i. e. the ports from Falmouth to Pembroke and the basins of the Severn and the Wye. The Midland Counties come next, and as a rule, at least in wheat prices, the markets north of the Trent are the cheapest of all. To the last fact there is a notable exception. There is frequently a special scarcity, not of all kinds of grain, but of the principal, at Appleby. The extreme severity of this scarcity makes it impossible to incorporate the Appleby average with the general Northern average.

Within the period contained in Houghton's averages are those seven years of scarcity which are frequently commented on by writers posterior to the period, probably because they were in such marked contrast with the low prices which prevailed during the first half of the eighteenth century. By these seven years were meant those from 1692 to 1698 inclusive, though in one of these years, 1694–5, the price of wheat was by no means excessive. Of these years the worst was 1693–4, and the next 1697–8. But I will now proceed with the particulars of each year.

1691–2. The returns are only for little more than a quarter of the year, the third, and a little of the fourth quarter. But this portion comprises the most critical part of the agricultural year. The earlier portion of it gives the estimate, local or general, of the harvest gathered in the previous autumn. The latter is affected by antici-

[1] Political Arithmetic, p. 337.

pations as to the character of the coming harvest. In this year the average price of wheat in the Home markets is 43*s.* 5½*d.*, the highest, and in the North 29*s.* 8¼*d.*, the lowest. Now the Cambridge corn rent average is 34*s.* 2*d.*, while Houghton gives 35*s.* 2½*d.* But the two rentals of Lady Day and Midsummer at Cambridge give an average of 35*s.* Houghton's price at Oxford is 44*s.* 5½*d.*, the Lady Day rent being 45*s.* 4*d.* Winchester does not come into Houghton's returns. Here the average for the whole year is 42*s.* 3*d.*; of four entries between Lady Day and Michaelmas, 47*s.* The nearest place to Winchester in Houghton's list is Newbury, where it is 44*s.* The Portsmouth assise in April is 38*s.*; and the nearest place to this in Houghton is Chichester, with an average of 36*s.* 4*d.* Lastly, the price of wheat at Windsor on Lady Day is 48*s.*; at Reading, the nearest point by water to it, 44*s.* 8*d.*

I have dwelt on these details as regards the price of wheat in the collections which I have made, and the returns supplied to Houghton by his correspondents, with the view of showing how slight is the discrepancy between the returns supplied to the financial authorities at Oxford, Cambridge, Winchester, and Eton, and those supplied by the collections for husbandry and trade. They prove that the corn rents and the returns can be depended on, and that Houghton's correspondents were trustworthy.

There is no marked indication to the end of June that the anticipation of the coming harvest was unsatisfactory, and therefore I conclude that the bad weather which undoubtedly affected the next harvest must have come late. This is suggested by the fact that the Cambridge corn rents, which alone give August prices, make these the highest of the year. For the rest, the highest wheat price is found at Exeter, 48*s.*, London being 40*s.* 11½*d.* The lowest is Berwick-on-Tweed, where wheat is only 18*s.* 8*d.* a quarter, almost every other kind of grain being equally low in this market. I cannot but think that the generally low prices which will be found to prevail in the Northern markets and the highest prices in the Thames valley are due to the very unequal distribution of money in England, a fact sufficiently notorious to be commented on in the literature of the time.

In the South and South-west barley and malt are dearer than in the Home markets. I conclude that the barley harvest was plentiful, for it is cheap in the Midland markets, and especially in Derby, then, as Houghton tells us, a principal locality for brewing, where they are generally at a high price. Oats are dearest in the Home markets, cheapest in the Northern and Midland, the lowest price, 6*s.*, being

found at Berwick. Now the Cambridge malt rent for the spring and early summer is 15*s.* 4*d.*, Houghton's price being 15*s.* 9¼*d.*, those of Oxford 21*s.* 4*d.* and 20*s.* Eton and Reading are each 21*s.* 4*d.*; Winchester and Newbury 21*s.* and 19*s.* 4*d.* There is a similar correspondence in the price of oats. Rye is dearest in the Northern markets and the South-west, cheapest in those of the Midland counties. Beans are dearest in the Home markets, especially at Reading. At Cambridge they are at 18*s.* 8*d.* in Houghton, 20*s.* in the College account. Grey peas are dearest in the South and South-west, white peas in the South-west and Midland markets.

1692–3. The collections for this year extend over eight months, or the last three quarters of the agricultural year. The highest average is that at Brentford, 65*s.* 2¼*d.*; the next at Kingston-on-Thames, 62*s.* 2¼*d.*; then at Rumford, 61*s.* 7*d.*, and Wycombe, 60*s.* 6½*d.* The average at London is 54*s.* 9½*d.* The lowest prices are in the Northern markets. Wheat is at 30*s.* in Berwick, 36*s.* 6*d.* at Hull, 40*s.* at York and Liverpool. At Oxford it is at 52*s.* 8*d.*, the corn rents being 52*s.* As a rule the rise is towards the end of the agricultural year, the very bad prospects of the coming harvest being recognised. Thus at London the first entry in January is at 54*s.*, the last in September at 64*s.* At Bury the price rises from 44*s.* to 64*s.*, at Chichester from 48*s.* to 64*s.* On the whole the greatest rise of the year is in the Eastern markets. The highest price of the year is realised at Brentford in the early autumn, 76*s.* The lowest prices are at Pembroke, but it has I believe been noticed not infrequently that corn prices in South-west Wales are often low when they are high elsewhere, this district often obtaining an immunity from disastrous wet. This was noticed, as I have it on the authority of a noble friend[1] of mine, in 1879 and onwards. The Home markets give the highest average of barley and malt, the rise in the price of which is fully proportionate to that of wheat. The next highest price is that of the Midland market, where the general average is raised by the Derby rates, which are the highest in the whole country, and for the reason given above. On the other hand, the price of barley and malt in the Eastern counties is lower than in any locality other than the North. The price of malt in London is 27*s.* 5½*d.*, in Cambridge 22*s.* 2¼*d.*, in Oxford 28*s.* 3*d.*, in Reading 29*s.* 0¾*d.*, in Newbury 24*s.* The College rents only differ fractionally from these figures.

Oats, except in the Midland, South-west, and Northern markets, are very dear. At Cambridge they are at 18*s.* 3¾*d.* But the Cambridge

[1] Lord Kensington.

College buys at 16*s.* 1½*d.* It must be remembered however that Houghton's are, as he assures us, the highest prices of the market, and marketable oats vary in quality more than any other kind of grain. At Reading they are at 19*s.* 1*d.*, which may be compared with 20*s.* at Eton. At Newbury they are at 20*s.*, which may be compared with the same price at Hurley in the same county, and with the price paid at Winchester. The highest average for the year is at Newmarket, 22*s.*; the lowest Pembroke, 7*s.* 3½*d.* Rye is in certain localities very dear, as at Gloucester 44*s.*, Maxfield (Sussex) 42*s.*, where it is only a little lower than wheat, and Reading 40*s.* 8*d.* In London the average is 31*s.* 0½*d.* The variations in the six districts correspond closely to those of wheat, but it is relatively dearer in the North.

The three kinds of leguminous plants do not share to the same extent in the general rise. Beans are dearest in the South-west, grey and white peas in the Southern markets. The highest quotation of beans is at Taunton, 32*s.*; next to it is Reading, 30*s.* 6*d.*; next Oxford, 29*s.* The price in London is 24*s.*, at Cambridge 24*s.* 11¼*d.* The King's College account gives a declining price, 28*s.*, during the last three quarters of the agricultural year. Beans are cheapest (16*s.* 8*d.*) at Carlisle. The highest price of grey peas is at Falmouth, 39*s.* 6*d.*, the lowest at Carlisle, 13*s.* 4*d.*, the price in London being 26*s.* 10½*d.* The highest price of white peas is at Rumford, 48*s.* They are 44*s.* at Appleby, 41*s.* 4*d.* at Falmouth, 35*s.* 1*d.* in London. The high price of peas at Falmouth is explained by the fact that they always formed an important part of a ship's stores.

1693–4. This year is the worst in Houghton's series. In my own collections, it is the worst since 1661. But though the price of wheat is everywhere high, it is far higher in the Thames valley, the home district, than it is in other markets. The fluctuations too in this district are exceedingly numerous, a change of price occurring sometimes nearly every week. Thus at Brentford there are thirty-seven different prices through the year, at Kingston-on-Thames forty-five, in London twenty-eight. The rise begins early in October, when the disappointing character of the harvest is generally learnt, and the highest prices of the year are obtained as a rule towards the end of the first and during the whole of the second quarter, though the fall is only slight up to the point in which the harvest of 1694 seems assured. The highest average is that of Brentford, 71*s.* 11½*d.*; the next Kingston, 68*s.* 11¼*d.*; and after this Wycombe, 67*s.* 10*d.* The London average is 60*s.* 4¾*d.* The highest price registered is about Lady Day at Brentford, 86*s.*, the price at Kingston at the same time being 84*s.* In Oxford at Lady

Day the price is 70*s.* 8*d.*, exactly that returned for the corn rent. In Cambridge at the same date Houghton gives 56*s.*, while the corn rent is 58*s.* 8*d.* At Eton the Lady Day price is 80*s.*, at Reading 76*s.* At Winchester the Lady Day rent is 76*s.*; but Houghton gives no place nearer than Farnham, where it is 78*s.* at Lady Day. But prices are not nearly so high elsewhere as they are in the Home district. The average of the latter is 64*s.* 1¾*d.*, of the Southern markets 54*s.* 7½*d.*, the Eastern markets being a little less. In the other three, the price is only a little above the average. Towards the autumn, prices in the six centres begin to fall rapidly; and by the latter end of September, prices at the Home markets are half, or less than half, at which they stood at Lady Day. Thus at Brentford they fall from 86*s.* to 42*s.* 8*d.*, at Croydon from 76*s.* to 36*s.*, at Kingston from 84*s.* to 40*s.*, in London from 66*s.* to 32*s.*, at Cambridge from 56*s.* to 32*s.* The same facts characterise the registers of the Southern markets. But there is not the same change of price in the Midland, the South-west, and the Northern markets. The dearth, though severe, was local.

The price of barley and malt was not greatly enhanced above that at which it stood in the previous year. In three of the divisions barley is actually cheaper, though malt is rather dearer in all. The colour of the barley must have been impaired, for in some localities malt is nearly as dear as wheat. It is however difficult to always determine whether the malt was of the same year with the rest of the harvest, for it was a custom with the prudent malster to keep his produce for at least six months before he brought it to market. This is probably illustrated by the fact that though barley falls under the prospect of the coming harvest, malt does not fall at all, or only slightly. With the exception of the Northern and the Eastern markets the price of malt is very uniform over England. The highest price of malt is at Maxfield, 43*s.*; Tetbury, 33*s.*; Gloucester, 32*s.* 1*d.*; and Wycombe, 31*s.* 6*d.* The price of oats is almost everywhere lower than in the previous year, though not greatly so; and in the exception, the Northern markets, it is only a shade, 2¼*d.*, dearer. So at Cambridge and Winchester, two localities contributing to my own collection, oats are cheaper than they were in 1692–3. The price of rye, though supplied from a few localities only, quite corresponds, proportionately, to that of wheat. The highest price is at Wycombe, 44*s.*, where wheat is 67*s.*; the next at Farnham, 42*s.* 2½*d.*, wheat being 63*s.* 5*d.*

The leguminous crops, beans, grey and white peas, are generally cheaper than they were in the previous year, or at the worst only fractionally dearer. The season in short attacked the wheat crop

severely, and no other agricultural product in the same degree. Even here the principal dearth was, as I have said, in the district which I have mapped out in the valley of the Thames. But it was natural, as the scarcity was most felt in that part of England where note would be taken of the loss, that the year 1693–4 was, under the growing habit of noting and recording facts, referred to as the commencement of a calamitous cycle. Nor did any one know except by private information, till Houghton began his collections, what was the price of grain in the several towns, though by an Act of Parliament, 1 Jac. II, cap. 19. § 3, provision had been made as regards the ports that returns of the price of corn should be made and certified in quarter sessions. But the Act was never put in force.

1694–5. There is a considerable fall in price in every quarter, especially in the Home district, this being the one moderately cheap year in the series of seven years of scarcity. In the Home district, wheat is nearly 23*s.* a quarter cheaper than it was in 1693–4; in the Eastern, about 21*s.*; in the Midlands, about 17*s.*; in the South, 18*s.*; in the South-west, 11*s.* 6*d.*; and in the North, 10*s.* I conceive that wheaten bread was far less commonly consumed in the North and in the South-east than it was in other parts of England. It will be seen on examination that the corn rents, taking Oxford and Eton in the Home, Cambridge in the East, and Winchester in the South, are at 37*s.* 1½*d.*, while the averages from all Houghton's entries in the same district are at 37*s.* 1¼*d.* Only two of the localities in Houghton give very high prices, but then Guildford and Romford make their returns in the fourth quarter only, and are anticipations of the next harvest, which as we shall see was very unfavourable.

Barley and malt are also low, both being lower than in any year but one, though in the case of barley the cheaper year is the last, in that of malt the first. This is to be explained by what has been already stated, that the malt of one year is, to a considerable extent, sold in the following year. Barley is a little dearer in the Home markets than it is generally in England, but malt is a little cheaper. In the malt rents this product is a little dearer than it is in the Home markets. The fall in the price of barley and malt is not nearly proportionate to that in wheat. Both were fairly plentiful, and there was no excess of consumption, at least none sufficient to keep up prices. Oats are also low, lower than in any other of the twelve years. As is usually the case, they are cheapest in the West and North, where the average price, 10*s.* 5½*d.*, is the same in both districts. The lowest rate is at Pembroke, from whence it seems a considerable export trade in grain was carried on.

Here they are only 6*s.* 3*d.* They are cheap also at Liverpool and Plymouth, 9*s.*; Oakham, 9*s.* 0¾*d.*; at Chester, 9*s.* 4*d.*; at Hereford, 9*s.* 7¼*d.*; and at Tedbury in Gloucestershire, 9*s.* 8*d.* The price of oats is generally found in all markets.

The price of rye corresponds generally to that of wheat, i.e. about ·66, wheat being taken at unity. It does not appear to be a common crop, or to be generally used for human consumption even in the North. It is clear too that the harvest was fairly favourable for leguminous plants, beans and the two kinds of peas. All these are dearer in the Home district than they are elsewhere, though in no great degree.

1695–6. A considerable rise takes place. Wheat is 12*s.* 6*d.* dearer in the Home markets, 15*s.* in the Eastern, over 12*s.* in the Midland, over 13*s.* in the South, over 9*s.* in the South-west, over 5*s.* in the North. Over the whole of England it is 11*s.* 9*d.* In the corn rents, it is nearly 22*s.* In drawing my district and local averages, I have omitted the return from Appleby, as the inclusion of it would have given an entirely erroneous impression of North country prices. For the years 1695–6, 1697–8, 1698–9, the price of some kinds of grain in this market are so exceedingly high that there must either have been some local famine, or the accounts transmitted to Houghton must have been erroneous. Thus in this year the prices of wheat, barley, rye and grey peas are dearer than anywhere else, while malt, oats and white peas are at the ordinary Northern rates. Wheat is dearest at Guildford, where however only the first two quarters supply returns, and at Brentford, where the price is as high as 80*s.* for some part of the first quarter, the average being 59*s.* 6½*d.* Wycombe is at 57*s.* 2*d.*, Rumford at 56*s.* 11¾*d.*, Hitchin at 54*s.* 1¾*d.*, Wantage at 55*s.* 4*d.* But the average at London in 46*s.* 7¼*d.* It seems that the highest prices prevailed along the valley of the Thames and its neighbourhood, and that prices at London were lessened by coasting ships. The lowest prices, as before, are in the Midland and Northern markets. The corn rents are a good deal in excess (nearly 9*s.*) of the average derived from the Home, South and East counties taken together.

Barley and malt are a good deal dearer, though rather below what one might have expected. As usual, they are comparatively low-priced in the Eastern counties. As in the case of wheat, the four malt rent towns give higher prices than on an average Houghton's correspondents do. The highest average of barley is from Brentford, 24*s.*; the highest of malt at Chester, 32*s.*; and it stands at this price through the year. But the latter is exceptional. It is not so dear at Liverpool, where it is at about the average. Oats are at a much

higher price in the Home markets and the Southern towns. The highest figures are, at Reading 22*s.* 10¾*d.*, at Chester 20*s.* 3¼*d.*, at Kingston-on-Thames 19*s.* 5¼*d.*, at Oxford 19*s.* 3*d.*; in London they are at 16*s.* 10*d.* The price of rye is not so much exalted, being on an average only 2*s.* a quarter above the price of the previous year, and being little changed in the Midland and Southern markets. I conclude that this crop must have been housed in fairly good condition, and that the injury to the harvest was comparatively late. This is confirmed by the fact that while the price of wheat is highest in the first quarter, this is not the case with rye.

The leguminous crops are all dearer, beans rising most, nearly 5*s.* on the previous year. Beans and grey peas are dearest in the Home markets, white peas in the Home and South-west. But, as I have observed before, the latter fact may be and probably is connected with the use of white peas as ship stores. The highest price at which they are quoted is that given from Plymouth.

1696–7. There is no great change in this year from that which preceded it. Wheat is a little cheaper in five of the districts, the greatest reduction on the average being in the Southern towns, where the fall is 4*s.* 8*d.* on an average. In the South-west it is however 6*s.* a quarter dearer. The highest price is at Exeter, 61*s.* 5½*d.*; the next at Plymouth, 60*s.* 9½*d.* The price too is high near London, though in the London market the average is 49*s.* only. As a rule, the highest prices prevail from about Lady Day to Midsummer, though in some cases the price continues to augment during the fourth quarter of the agricultural year. In some localities however, where the market fluctuates greatly, when the price is generally high, there is little or no change. On the whole, next to the harvest of 1694–5, this is characterised by the least scarcity of the seven years of dearth.

Barley and malt are, on the other hand, dearer in all but the Home markets. Their relations are now disturbed, for in 1697 a duty of 6*d.* a bushel was levied on malt, and though it does not seem that this duty is always included in the price, yet it seems to be in some markets, perhaps in some districts. Thus in the South, barley is 21*s.* 1*d.* the quarter, malt 26*s.* 7*d.*; in the Midland markets the averages are 20*s.* 1½*d.* and 24*s.* 8*d.*, the increase of bulk effected in the process of malting paying for the cost of the manufacture. But in the other centres the difference is not such as would cover the excise of 4*s.* a quarter. The highest price of barley is at Falmouth, 35*s.* 4*d.*, whence no returns of malt come; the highest price of malt is at Exeter, 39*s.* 10*d.*: it is also 33*s.* 2*d.* at Pembroke. In London

the average of barley is 19*s.* 2*d.*, of malt 24*s.* 6*d.* Oats are cheaper in the Home, Eastern and Midland markets, but dearer in the others. The price is highest at Chester, 23*s.*, and at Tedbury and Wantage, each 20*s.*; in London they are 14*s.* 3¼*d.*; at Pembroke they are cheapest, 9*s.* 3¾*d.*

Rye is dearer than in the previous year, in every district but the Home. The greatest rise is in the South-west district, in which it is more than 5*s.* dearer than in the previous year. But in this district every kind of grain, except beans, is at a higher price than in 1695. If therefore I attempt to discover the cause, I should set it down to bad weather early in the harvest. There is little to comment on in the price of beans and grey peas: the former is a little lower than in the year 1695, the latter only fractionally lower, and prices being lowered less in the South, South-west and North than in the other districts. On the other hand, the price of white peas is higher on the average, the increase being very great in the South-west, being 17*s.* 6*d.* a quarter on the previous year.

1697–8. This, taking England all over, is the worst of the seven years. The average of the Home markets does not rise so high as in 1693, but in all the other districts it is higher. The scarcity too is more uniform and unbroken over the whole year, there being comparatively few fluctuations in the market. Eleven places out of fifty-six register a price of over 60*s.* a quarter, the highest being Lewes with 66*s.* 4¾*d.*, the next Rumford with 66*s.* Dartford and Croydon are very near with averages of 65*s.* 6¾*d.* and 65*s.* 1¼*d.* respectively. The average at London is 59*s.* 6¼*d.* It is 36*s.* in Chester, but returns come from this market in the first quarter only. There are only eight localities in which it ranges between 40*s.* and 50*s.* The scarcity is therefore general, and the character and amount of the harvest must have been as generally appreciated. It was I imagine from noting the effects of this dearth that Davenant, availing himself of Gregory King's calculations, published in 1699 his essay on the Balance of Trade, and included in that part of it which deals with the Land of England and its products the famous law of prices which Gregory King enunciated[1].

The price of barley and malt are not so much enhanced as one might naturally expect, and this I think is due to a stinted consumption. These products are again dearer in the South-west district than they are elsewhere, the highest price of barley being at Bristol, 32*s.*, and the highest of malt, Dorchester, 36*s.* In London they are respectively

[1] Davenant's Works, vol. ii. p. 224.

22*s.* 9¼*d.* and 30*s.* 4*d.* In some of the localities too in which malt is ordinarily cheap, as at Rugby and Stamford, the price is high. The lowest prices of both are from the Eastern counties. Oats, on the other hand, are not very dear in any of the districts, being scarcely altered from the average of the preceding year. These are dearest in the Northern markets. The highest price is Chester at 23*s.* But they are sold at 20*s.* in Tedbury and Wantage. In London the price is 15*s.*

Rye fully participates in the rise, being 7*s.* 6*d.* on the general average dearer than in the preceding year, and reaching the highest price in the South-west, where it is more than 10*s.* higher than in 1696. But the proportion between it and wheat is maintained. The highest average is 48*s.* at Monmouth. But it is 46*s.* 4*d.* at Brecon, 47*s.* 5*d.* at Hereford, places included in the South-west district. Beans and peas however are only fractionally dearer, and white peas, though a little dearer on the whole, are cheaper in the South-west than they were in 1696.

1698–9. The character of this year does not differ notably from that of the last. In every district but the North prices are slightly lower, but this result is entirely due to falling prices in summer consequent upon the near prospect of a fairly good harvest, which would naturally be discerned at a later date in the North. The fall is only on an average about 2*s.* a quarter, but it is a mere fraction in the Midland district, while there is a rise of 4*s.* 6*d.* in the North. The highest average is Brentford, with 62*s.* 3½*d.*; next is S. Alban's, with 61*s.* 10½*d.*; then Croydon, with 61*s.* 6¾*d.* The average at London is 55*s.* 4*d.* Omitting the average at Pembroke, which is always low, the prices at Falmouth, Exeter, and Plymouth are 41*s.* 9¾*d.*, 43*s.* 10½*d.*, and 44*s.* 8*d.*; and in this year the lowest range of prices is in the South-west district, to which I have assigned the two sea-ports. Some of the Midland prices are also comparatively low. The Home district prices are, as usual in times of scarcity, about 6*s.* 6*d.* dearer than the others; but the other four districts (I except the South-west) are very close together, ranging it will be seen from an average of 51*s.* 4½*d.* to 52*s.* 6*d.*

Barley and malt are a good deal dearer, about 3*s.* 6*d.* There is a rise in every district, being least in the South. The highest price for barley is at Brecon, 36*s.* 4*d.*, where malt is 40*s.* But at Derby, where brewing was extensively carried on, the prices are respectively 34*s.* 4¾*d.* and 42*s.* 4¾*d.* Both are dear at Monmouth and Liverpool; at Stafford, where the prices are 24*s.* 1¼*d.* and 47*s.* 6¼*d.*; and at Wallingford, 31*s.* 1¼*d.* and 42*s.* In London the prices are 26*s.* 8*d.* and 36*s.* 11*d.* Generally the great discrepancy between the prices of

barley and malt point to the fact that the quality of the barley must have been very low.

Oats are dearer than in the previous year, the general average being 15*s.* 8¾*d.* as compared with 14*s.* 3*d.*, the highest price of the whole twelve years being recorded in this. They are dearer at every district but the South-west, where they are exactly at the rate of 1697. There are fourteen localities which give an average of over 20*s.*, the highest being Chichester, where they are at 28*s.*, and are considerably dearer than malt. In London the average is 20*s.* 3¼*d.* They are comparatively dear too in places where they are ordinarily cheap, as at Pembroke, Exeter, and Hereford. The crop was no doubt a very short one. Rye is also dearer than last year, on the general average, there being a fall in two of the districts only, the Home and the South-west, and a rise in all the others.

Beans and grey peas are about 2*s.* a quarter dearer, the principal rise again being in the North, the only fall being in the Eastern district. Beans give the highest average this year for the whole twelve, and peas being nearly at the highest. White peas are almost unchanged, but they are dearer in the Northern district. The highest price of beans is 42*s.* 10¼*d.* at Richmond, and the next 41*s.* 2¼*d.* at Ripon, both in York. The highest price of grey peas is 38*s.* 4¾*d.* at Derby; the next at London, 34*s.* 10¼*d.* The highest price of white peas is at Richmond, 46*s.* 4¾*d.*; the next at Liverpool, 43*s.* 7*d.* At London, beans are at 31*s.* 3½*d.*, and white peas at 40*s.* 2¾*d.* At the two South-western ports of Pembroke and Plymouth white peas are at 41*s.* 2*d.* and at 41*s.* 4*d.* This year is the last of the great scarcity, one which was not indeed so scarce as certain periods in the earlier part of the century, but one which was remembered perhaps most of all by contrast with the plentiful years of which England soon had experience.

1699–1700. The price of wheat falls everywhere, nearly 17*s.* a quarter in the Home markets, nearly 14*s.* in the Eastern, nearly 12*s.* in the Midland and Southern, nearly 9*s.* in the South-western, and nearly 11*s.* in the Northern. In no place is the price at 50*s.*, a common rate for the seven past years, except in 1694. The highest average of the year is at Liverpool, 48*s.* 10¾*d.*; the next at Derby, 48*s.*; the next at Rumford, 46*s.* 4*d.* In London the average is 38*s.* 6*d.* In twenty-six localities out of fifty-three given in Houghton's list the price is below 40*s.*, the lowest being Pembroke, 33*s.* 4*d.*, the next Newmarket, 35*s.* 10¾*d.* At Cambridge the price is 38*s.*; at Oxford, 43*s.* 2*d.*; at Reading, the nearest town to Windsor, 44*s.* 1½*d.*; at Southampton, the nearest to Winchester, 42*s.* 4*d.* In the corn rents, the

prices are 37*s.* 0¼*d.*, 50*s.*, 49*s.* and 42*s.* 10¾*d.*; but in Eton and Oxford the entries are of Michaelmas and Lady Day only; while in Houghton's entries, the price falls continuously through the summer, the difference between Lady Day and August prices being considerable.

There is by no means so marked a fall in barley and malt; it amounts to nearly 2*s.* 6*d.* in barley, 5*s.* in malt. But slight as the former fall is, there is a fall in all the districts in barley, and a greater general fall of malt. In some places barley and malt are still at high prices. At Derby, as usual, they are both highest, 34*s.* 8*d.* and 40*s.* They are also high at Stafford, 32*s.* and 38*s.* 11*d.* In London they are at 23*s.* 3¾*d.* and 29*s.* 2¾*d.* Oats however suffer only a fractional decline on the general average, and in one district, the South-western, they are a little dearer. In five localities the average is 20*s.* and upwards. In London they are close upon the general average, 15*s.* 10½*d.* The highest price of oats is at Reading, 24*s.* 3½*d.*

Rye falls on the general average 6*s.* 3*d.* a quarter. In London the price is 25*s.* The highest price of rye, like the highest price of wheat, is at Liverpool; the next at Stafford, 35*s.* 4*d.*; the next at Oakham, 34*s.* 8*d.* There is but little change in the price of beans, grey peas, and white peas. The first-named is less than a shilling cheaper, the second is fractionally dearer, and the last a little cheaper on the general average.. In some of the districts the prices slightly rise, in some they slightly fall over the previous year. But the rates of the leguminous plants during the whole of the scarcity were not excessive.

1700–1. On the general average there is a further fall of nearly 10*s.* a quarter in wheat, the least reduction being effected in the South-west and North, where the price is higher than in the other four districts, and in which the fall is from 12*s.* to 13*s.* The highest price of the year is at Plymouth, where the average is 40*s.* 1¼*d.*, no other reaching 40*s.*; the next is Falmouth, 37*s.*; and the next is Liverpool, with an average of 36*s.* 10¾*d.* The average in London is 30*s.* 9*d.* Out of forty-eight localities contributing to Houghton's returns, twenty-seven give an average below 30*s.* The fall is at two different periods. The first is in the first week of November, and is due to the fact that the character of the harvest was now generally known. The second is in June, and was induced by the prospects of the coming harvest. Now the influence of the harvest on Northern prices would naturally come late, and we should not expect so early a response to the facts in Newcastle-on-Tyne and Liverpool as would be given in the valley of the Thames and the Southern counties. The price of wheat in the South-western parts is significant, and points I conceive to an active

export. It is not easy however to discover the process by which the officers of the Customs managed the business of corn exports and imports[1].

Barley and malt fall about 4*s.* and 5*s.* 9*d.* on the general average. Here again the decline is less in some districts than others. It is least in the South, South-west and Northern counties, considerable in the other divisions, and most (about 8*s.* 6*d.*) in the Midland localities. The difference between barley and malt is so slight as to prove that the producer did not pay the duty, at least before sale, and that it must have been paid by the purchaser when the goods were delivered, as was the common custom in the early days of the excise. The highest average of barley is at Brecon, 31*s.*; the next at Devizes, 25*s.* 2½*d.*; the next at Warrington, 24*s.* 8½*d.*; next at Pembroke, 23*s.* 11*d.* At London the average is 17*s.* 4*d.* The lowest price of barley is at Oxford, where it is nearly all through the year at 12*s.* Next to this is Bury, with 13*s.* 2½*d.* Of the whole forty-eight localities, twenty-three have a price below 20*s.* The highest price of malt is at Brecon, 31*s.* 8*d.*; the next at Pembroke, 26*s.* 9¾*d.*; the next at Liverpool, 23*s.* 4½*d.* The average at London is 20*s.* 9½*d.* The lowest price is at Bury S. Edmund's, 16*s.* 4¾*d.*

Oats on the general average bear a fall of about 2*s.* 4*d.*, the fall being slight in the Eastern, South-western and Northern localities, and being most considerable in the Midland. Only one average, Dunstable, 21*s.* 9½*d.*, is over 20*s.*, where there seems to be a local scarcity, the average of the great majority being below 15*s.* The lowest is Nottingham, 9*s.* 6*d.*; the next Stamford and Ripon, each 10*s.* The price in London is low, 11*s.* 9½*d.* Rye falls nearly 7*s.*, and is hardly anywhere exceptionally dear, the highest price, Richmond, being 32*s.*, wheat being 35*s.* 2¼*d.* in this town. In London, rye is 20*s.* The lowest price is Melton Mowbray, 17*s.* 7*d.* Beans and the two kinds of peas also fall, and to nearly the same amount, almost 3*s.* a quarter; and the fall is very generally distributed. The highest price of beans is at Devizes, 36*s.*; the next at Melton Mowbray, 34*s.* 4*d.* These figures seem to point to local scarcity. The price in London is 19*s.* 3*d.* The highest price of grey peas is at Warrington, 37*s.* 4*d.*; the next at Southampton and Wantage, 32*s.* The price in London is 28*s.* 2½*d.* The highest price of white peas is at Richmond, 42*s.*; the next at Andover, Hereford, and Ripon, 40*s.* The price in London is 32*s.* 4¾*d.*

[1] See for a summary of the laws regulating the corn trade, and the machinery of the Customs, Governor Pownall's Memoir to the Treasury in Young's Political Arithmetic, p. 303.

1701–2. Houghton's year contains fifty entries. Wheat suffers a further fall of 5*s.*, the general average being 25*s.* The greatest fall, as may be anticipated, is in the South-west and Northern districts, the least in the others. Still the South-west and North are above the general average, as is also the Home district, the lowest prices being in the Midland region. Among the fifty localities which furnish evidence, the highest price is at Plymouth, which gives an average of 39*s.* 6*d.*; the next, Liverpool, with 30*s.* The next price is 29*s.* 4*d.*, the average at Brentford, Monmouth, Newcastle, and Warrington. The London average is 26*s.* 7*d.* The lowest price is at Melton Mowbray, 18*s.* 8*d.*, the only place where the price falls below 20*s.* The rates are generally uniform, for the prospect of the coming harvest was good in the summer, and the price at the end of the agricultural year being rather depressed than raised.

Barley is a little depressed in price, malt not at all. The principal fall of the former is in the East, South, South-west and North, there being hardly a change in the other two districts. The highest price for both barley and malt is Brecon, where the prices are 24*s.* $4\frac{3}{4}$*d.* and 30*s.* The next highest price of barley is at Abingdon and Andover, in each of which it stands at 21*s.* $9\frac{1}{2}$*d.*, the price of malt being the same at both. The second highest price of malt is at Falmouth, 26*s.* $4\frac{3}{4}$*d.* It is 24*s.* $9\frac{1}{2}$*d.* at Guildford, 24*s.* at Hereford. In London, barley is at 17*s.* $2\frac{3}{4}$*d.*, and malt at 22*s.* $10\frac{1}{4}$*d.* There are only five places in which barley is cheaper than in London.

Oats are cheaper than in the year 1700 in all the districts except the Home, where they are a few pence dearer. The highest price is at Guildford, where they are 17*s.*; the next at Pembroke, where they are usually cheapest, 16*s.* 8*d.*; and next at Reigate, 16*s.* 6*d.* In London the average is 12*s.* The lowest price is at Exeter, 7*s.* $2\frac{1}{4}$*d.*; the next at Ripon, 8*s.* $2\frac{1}{2}$*d.*; next at Rugby, 8*s.* 8*d.*; and next at Melton Mowbray, 9*s.* 4*d.* These are the only prices below 10*s.* The most considerable fall is in the South-west district. Rye falls proportionately to wheat, the general average being 19*s.* $6\frac{3}{4}$*d.* The highest price is at Richmond, 32*s.*, where something exceptional is at work, for wheat in the same market is only 24*s.*, for the same price is given every quarter of the year. No less than five localities have the same price, 24*s.*, Brecon, Monmouth, Newcastle-on-Tyne, Warrington, and Wycombe. The price in London is very low, 16*s.* $1\frac{1}{2}$*d.*, one of the lowest recorded, though rye is 13*s.* 4*d.* at Hereford and 15*s.* 5*d.* at Exeter.

Beans, grey peas, and white peas have all fallen in price, beans 2*s.* 6*d.*,

and white peas 1*s.* 8*d.*; the fall in grey peas being trivial, and chiefly in the Northern markets. The highest price of beans is at Hereford and Hitchin, 28*s.*; the lowest at Ripon, 13*s.* 6*d.* The price in London is 17*s.* 4*d.* The highest price of grey peas is at Brentford, Southampton, and Wantage, 32*s.*; the lowest at Ripon, 12*s.* 3*d.* The price in London is 23*s.* 2½*d.* White peas are sold at Richmond at an average of 42*s.* 1½*d.*, in Andover and Hereford at 40*s.* In London the price is 32*s.*

1702–3. In this, the last year of Houghton's series, and the last of the period before me, the price of wheat rises slightly on the previous year, 1*s.* 10*d.* on the general average. The principal rise is in the Home, Eastern and Southern counties. In the Midland the rise is trivial, in the Northern a few pence, in the South-west the price is absolutely unchanged. The highest averages are near London; Brentford and Croydon, 34*s.*; Kingston, 32*s.* 2*d.*; Reading 32*s.*; Dartford, 30*s.* 10*d.*; the lowest price is at Melton Mowbray, 20*s.* The London average is 28*s.* 9½*d.*

Barley and malt are lower, there being a considerable decline in the former in all the districts, the average being nearly 3*s.* less than in 1701. But the fall in the price of malt is only a few pence, the only notable fall being in the South-west, while in some of the districts the price is fractionally increased. The highest price of barley is at Hereford and Ripon, 20*s.*; the lowest is at Exeter, 12*s.* 9½*d.*; next at Stamford, 13*s.* 1½*d.* The price in London is 14*s.* The highest price of malt is at Hereford, 24*s.* The London average is 20*s.* 10*d.* Oats are almost at the same price as in 1701. In London they are at 12*s.* 9½*d.* Rye is a little dearer. Beans are decidedly cheaper, grey peas fractionally cheaper, white peas fractionally dearer; but the change is so slight, that it may be treated as accidental.

The import duties of the Restoration Parliament and the bounties of the Convention Parliament were intended to raise the price of corn. But it is clear that for some time they did not effect this purpose, for there were periods in which, despite the import duty, the price of grain was continuously low, and there is reason to believe that the export duty had the effect of stimulating the cultivation of such land as would not have been employed for tillage at all, except in the view of the bounty. This fact, years after the operation of the bounty had practically ceased, was recognised and insisted on in

Young's Political Arithmetic. It is true that this accurate, intelligent, and conscientious observer clings to both bounty and import duty, but he does so not so much for the advantage which he thinks they give to the farmer, as for the benefit which he believes they confer on progressive agriculture. But I am of opinion that the bounty of 1689 had its effects on the prices of corn at the Western ports, and that it is far from unlikely that Houghton's returns in these localities show what is after all a factitious depression. In Pownall's memoir on the corn trade, the difficulty of getting trustworthy returns on prices of exported grain is commented on.

I have not found it necessary, as in previous volumes, to comment on the variety of measures in England. There still survived anomalous local measures, and Houghton collected and published them early in his periodical. Thus we are informed that the aighendole of East Lancashire was 7 quarts, that the barrel at Derby was 32 gallons, that the bowl of Berwick was 6 bushels. The bushel is still various in quantity. At Abingdon and Andover it is 9 gallons, at Chester 32 gallons, and in oats 40 gallons. At Appleby, wheat, rye, and peas are sold by the bushel of 16 gallons, oats and mixtil by 20 gallons. In Carlisle the bushel contains 24 gallons. In Dorchester, while all other kinds of grain have 8 gallons to the bushel, malt and oats are sold at 10 gallons. At Kingston-on-Thames the bushel is 8½ gallons, at Reading and Wycombe 8¾ gallons. The quarter at Farnham is 8¼ bushels, at Kingston 8½, at London 8, at Reading 8¾. The chalder is 63 bushels at Hull, 36 at London and Oxford, 32 at York. The windle is 12 gallons at Manchester, 26 at Lancaster and the North. The load at Appleby is for peas, rye and wheat 4 bushels, of barley and bigg 5 bushels. At Wakefield the met is 8 gallons. These are all the local measures of corn which Houghton notes, and he collects them in order to reduce his returns to uniformity, or at least to supply the means for so reducing

[1] Young's Political Arithmetic, p. 307, &c.

them, for certainly the prices of corn in Farnham, Kingston-on-Thames, and Reading are generally high. The last at King's Lynn, from which a considerable foreign trade was carried on, was 10½ quarters. But none of these local measures appear in my own accounts, for I have no returns from the district in which they prevailed.

I see no reason to depart from the conclusion I arrived at when I first began to comment on these researches, that single and small entries are equally valuable with large ones. It is true that the evidence supplied in these volumes, derived mainly from four regularly recurrent sources, differs from the more copious, diversified, and more irregular contributions to the first two periods. But the occasional aid which other entries have supplied me with has been of great value in supplying me at once with additional knowledge, and with corrections. This is particularly the case with those local entries which give the price paid by consumers, in contrast with that furnished by the return of the highest market rate.

I have drawn the decennial averages of eight kinds of grain and grain products, viz. wheat, barley, malt, oats, oatmeal, beans, peas, and wheat-flour. Though the register is somewhat broken, and in one or two places rather seriously in the case of certain decades, I do not doubt that with the exception of barley, for which very scanty evidence is procurable for the last forty years, the decennial average is in the rest of these cases fairly accurate. But it will strike every one who glances at the annual averages, that the hundred years from 1603 to 1702 represent a more settled range of prices, than the twenty years which precede them. Two of the earlier years, 1596 and 1597, were years of famine, two were years of remarkable plenty, 1587 and 1588, and to these latter there is no subsequent parallel. I therefore infer that the new silver did not induce a final and permanent influence on prices till after the commencement of the third decade, that it had a rapid effect at the beginning of the century, and a slow effect afterwards.

We shall see this however more fully when we come to examine the prices of commodities generally.

Now the general average gives a price of wheat of 39*s.* 0½*d.* The average of the first twenty years is 29*s.* 3½*d.*, of the last hundred years 41*s.* I do not indeed purpose to take the last of these as a standard, but it is plainly necessary to draw attention to the fact alluded to, that despite the excessive dearness of the years above referred to in Elizabeth's reign, the evidence is up to a certain point one of a rapid increase of prices. I think, for reasons which I shall be able to allege lower down, that the final effect of the new silver, as far as the seventeenth century is concerned, was not accomplished till about 1648.

The following years are those of great dearth, the price of wheat rising above 60*s.* a quarter: 1630, 1647, 1648, 1649, 1661 (over 70*s.*, and the highest of all), 1693, 1697.

In the following years it is below 60*s.* and above 55*s.*: 1596, 1650, 1658, 1698.

In the following it is between 55*s.* and 50*s.*: 1597, 1608, 1622, 1646, 1659, 1673, 1674, 1678, 1696.

In the following it is between 50*s.* and 45*s.*: 1586, 1617, 1625, 1632, 1637, 1651, 1657, 1662, 1663, 1677, 1684, 1692, 1695, 1699.

In the following it is between 45*s.* and 40*s.*: 1595, 1612, 1613, 1616, 1621, 1624, 1629, 1631, 1633, 1634, 1635, 1636, 1640.

In the following it is below 20*s.*: 1584, 1587, 1588 (the cheapest year), 1591.

In the following it is between 20*s.* and 25*s.*: 1583, 1592, 1593, 1601, 1654; and if we can omit a single entry from one place at a price which I feel convinced is a mistake in the original, in 1688.

In the following it is between 25*s.* and 30*s.*: 1589, 1590, 1599, 1602, 1603, 1604, 1605, 1619, 1620, 1627, 1653, 1666, 1685, 1687, 1689, 1690, 1701, 1702.

In the following it is between 30*s.* and 35*s.*: 1585, 1598,

1600, 1606, 1610, 1615, 1618, 1626, 1628, 1643, 1644, 1645, 1652, 1655, 1667, 1669, 1671, 1676, 1682, 1686, 1700.

In the following it is between 35*s.* and 40*s.*: 1594, 1607, 1609, 1611, 1614, 1623, 1638, 1639, 1641, 1642, 1656, 1664, 1665, 1668, 1670, 1672, 1675, 1679, 1680, 1681, 1683, 1691.

It is nearest to the general average in 1638, 1664, and 1680.

During the last twelve years of the period comprised in my third and fourth volumes, vol. iv. p. 292, the average price of wheat was 16*s.* 8*d.* In only two of these early years, both in the first decade, it falls below this figure. But taking the average of the first twenty years, 29*s.* 3¼*d.*, as a guide, and remembering that this includes a rising market and two great scarcities, the period opens with two years of moderate prices, such as had been experienced for seven years previously. Then two dear years, one exceedingly dear, follow, and two of great cheapness. To these succeed five years of comparatively moderate prices, if we remember that prices are rising. Then follow five years of unprecedented scarcity, the third being the worst, being nearly double the price of the worst recorded year just forty years earlier. The residual four years oscillate about the average given above.

The next four years are what would be now called cheap, the price always gradually creeping up. Then follow three years which are dearer, the middle one much dearer. Then follow nine years, which are not much above and not much below the general average, to be followed by two very cheap years. Then come two, one a little above, the other a great deal above the average. Then come two rather dear years, and three cheap years. Then comes a period of comparative scarcity, one being a year of famine with prices above all previous experience. This period lasts nine years. Then follow eight moderately cheap years, to be followed by the disastrous five years of 1646–50, a period of excessive and unbroken dearth, in which I do not doubt that many persons perished of famine. Another year of high prices is followed by three cheap years,

one of which is the most abundant of the century. Two more moderately cheap years follow, these five years together forming a marked and immediate contrast to those which follow, and suggesting that the cheapness might be due to the loss of population. Then come five more years of very straitened prices, one of them, 1661, being the dearest on record during the century, and not to be rivalled till the close of the following century, the price in some parts of the year rising to near 100*s.* the quarter. Two rather dear years follow, and then follow nine years of plenty. Then come two dear years, two cheap years, and two dear years, five cheap years, one rather dear year, six exceedingly cheap years, and two of moderate prices. Then comes the well-known seven years' dearth at the conclusion of the seventeenth century, one of the years not deserving the appellation, then a year of rather high prices, the period finishing with three very cheap years.

It is not a little remarkable that there does not appear to have been any comment made on these remarkable agricultural experiences. The first prolonged scarcity occurred during the heats of civil war, and though of unexampled and prolonged severity, may have escaped notice when more pressing events were tasking the attention and occupying the energies of men. But I do not remember to have read of any allusion to the famine of 1661–2. The scarcities or famines of 1315–16, of 1321, of 1369, of 1438, of 1551, of 1556, of 1596–97 are fully commented on by contemporaries, but these dearths, which must have had a great and most disastrous effect on the condition of the labourers, have not been commented on. But I shall have a fuller opportunity of indicating their significance in the economical history of England when I come to deal with their relation to the wages of labour, and the considerable and permanent rise which took place in those wages after the conclusion of the Civil War.

The average price of barley is 21*s.* for the whole period, 21*s.* 11¾*d.* for the hundred years 1603–1702, and 16*s.* 4*d.* for the first twenty years. In the last forty-two years of my

fourth volume, from 1541 to 1582, it was 8*s.* 5¾*d.* Now my prices of barley, though pretty regular for the first eighty years, are exceedingly deficient for the last forty. Still the ratio which I find between barley and malt is so close and so natural, that I am confident that 21*s.* is practically an accurate price for the average of the hundred and twenty years, and 21*s.* 11¾*d.* for the hundred years.

The average price of malt, of which there is an unbroken record, is 22*s.* 9¼*d.* for the whole period, 23*s.* 7¾*d.* for the hundred years, and 18*s.* 5*d.* for the first twenty. It will be remembered that my malt prices are generally of the best quality, those which, being taken for corn rents, were the highest in the market. Now the difference between the barley and malt averages is from 1*s.* 8¾*d.* to 1*s.* 8*d.* a quarter[1]. This we shall find hereafter is less than the difference on an average between Houghton's barley and malt prices, the entries in his register being abundant for both. In the forty-two years 1541–1582 the difference between malt and barley is nearly 2*s.* in favour of the former.

Now it is not a little remarkable that the highest price of malt during the whole 120 years is in 1596, when it stands at 36*s.* 10¼*d.* The next is in 1637, which is not an excessively dear year for wheat, at 36*s.* 2½*d.*, a rate reduced by D'Ewes' accounts, for otherwise it would have been 41*s.* 3½*d.* Barley is also excessively dear this year, 38*s.* 6¼*d.* In the dearth of 1630 it is 35*s.* 1*d.*, barley being again dearer than malt, 38*s.* 1¼*d.* During the three years of famine, 1647–9, it is again very dear, 35*s.* 0½*d.*, 35*s.* 6½*d.*, and 34*s.* 11*d.*, barley being 39*s.* 1*d.*, 41*s.* 7¼*d.*, and 34*s.* 8*d.* In 1661 it is 33*s.* 6*d.*, in 1662 30*s.* 3¾*d.*, in 1698 34*s.* 0¾*d.*, and in 1699 31*s.* 1¼*d.*, in which latter year barley is at 30*s.* These are the only years in which it reaches 30*s.* and upwards.

I seem to trace that high prices of barley and malt are

[1] In 1634, D'Ewes makes the following note in his account book: '60 comb' (30 quarters) 'of barley cost me £30 10*s.*, malting it £3, and was increased in the whole unto 70 comb.'

frequently more characteristic of the year following an excessive price of wheat than of the scarcity year itself. This is probably due to the fact that seed barley was constantly purchased in the spring, and malt was reputed to be improved in value by careful storing. Besides, two centuries ago and more shrewd farmers knew that spring and early summer prices were always highest. The poorer agriculturists forced their produce early into the market, the stronger ones held it back.

The lowest price of malt, and almost the lowest price of barley, is the year of the lowest price of wheat, 1588; and in general low prices of malt followed low prices of wheat, as for example in 1619, when wheat being at 25*s.* 5*d.*, malt is at 14*s.* 4¾*d.* In 1603, when wheat is at 26*s.* 7¼*d.*, malt is even lower, 13*s.* 11½*d.* In 1654, the cheapest wheat year of the seventeenth century, the price being 21*s.* 8*d.*, malt is at 16*s.* 10½*d.* It will be seen on examination that when malt is cheap, barley is much cheaper, the reverse relation being exhibited when malt is dear.

The price of oats is unbroken throughout the period. The average for the whole time is 13*s.* 10*d.*, of the hundred years 14*s.* 8½*d.*, of the first twenty 9*s.* 9¼*d.*, the dearest decade, as indeed is the case with every kind of grain, being that of 1643–52. During the first decade, oats are only once as high as 10*s.* a quarter and upwards. In the famine of 1596 they are at 18*s.* 0¼*d.*, a price which they do not reach again till fifty years afterwards, when the five years of famine occur, when they fully participate in the rise; as also in 1661. After this date they are never up to 20*s.* and upwards, at which rate they were found before in three years only. There is more difficulty in arriving at a satisfactory estimate of the price of oats than in any other grain, as there are so many kinds and qualities of them; and except for the occasional returns from Winchester, there are no records of the maximum price of oats, like Houghton's entries, which he expressly states were of the best kind.

The price of oatmeal fails me for only ten years in the hundred and twenty, chiefly in the first half of the seventeenth century. On one or two occasions the meal is designated as groats, i.e. oats husked, and not ground or only coarsely ground. For the whole period the average price of this article of diet is 45*s.* 9¼*d.*, for the hundred years 48*s.* 6*d.*, and for the first twenty 32*s.* In the entries which I made in my fourth volume I found on examining the facts, and with new information discovered in another source, that the ratio of oatmeal to wheat was nearly that of 19 to 15. Here it stands in that of 24·25 to 20·5, no very marked discrepancy from the previously discovered relation. It is a common article of diet in the Oxford Colleges and at Winchester, where it is used apparently for thickening soup, the latter society buying it largely. Had the early Winchester accounts been preserved, I should have had no gap in my record.

Oatmeal is at 80*s.* and upwards twice, in 1596 and 1648, two years of famine. It is at 70*s.* and upwards in 1631 and 1649, the latter a famine year, the other one of average prices, the entry of the former coming from one Oxford College, and of the latter from another. From the time at which the Winchester domestic accounts commence in 1646, the principal source of information for oatmeal is thence, and there is good reason to believe that oats were an abundant and generally a low-priced crop in Southern Hampshire.

Wheat-flour, generally returned from the Oxford Colleges, fails me for twenty-three out of the hundred and twenty years. But I do not think that those deficiencies seriously affect either the decennial or the general averages. The average for the whole period is 51*s.* 10¼*d.*, for the hundred years 53*s.* 4*d.*, for the first twenty 44*s.* 4¾*d.* The highest price is in 1693, 92*s.* its next in 1698, 88*s.*; and it is at 80*s.* or 80*s.* 4*d.* in 1692, 1695, 1696, and 1697, all the entries being from New College, Oxford. There is also an entry from London in 1698 of 'finest flour' at 122*s.* 8*d.*, but I have not included this in the

averages. Flour is also 80*s.* in 1596, in 1648, 1649, and at 87*s.* 3*d.* in 1661, as indeed might be expected.

I have found only twenty-nine prices of rye for the whole period, and these chiefly in the earlier years. This grain was I imagine rarely used for food in Southern England, and was never used by those corporations from whose records I have derived the greater part of my evidence. It only occurs in one of the famine years, 1596, when it is nearly as dear as wheat, 52*s.* 9½*d.* It occurs again in one of the cheap years, 1627, when it is only 13*s.* 5*d.*

Beans and peas, the latter generally grey, i.e. the cheaper kind of field peas, are never both absent from my evidence in any one year. But beans fail me for fifteen years, peas for nine. They are at nearly the same price. The general average of beans is 22*s.* 3¼*d.*, of peas 22*s.* 4¼*d.*; for the hundred years 23*s.* 1½*d.* and 23*s.* 2¾*d.* They are almost invariably bought for stable purposes, beans generally at Oxford, peas generally at Cambridge. At about the middle of the seventeenth century, New College, Oxford, made a bargain with some of the farmers at two of their estates in Buckinghamshire to supply the College stable with certain quantities of beans at market rates, the College paying a stipulated sum for carriage. Besides those peas for which the purpose is obvious, there are entries of other kinds of peas evidently for the table; these will be commented on hereafter.

It now remains that I should comment on the averages obtained from Houghton's prices. He gives eight kinds of grain, and I have condensed his information into four tables. The first is of districts, in which the local averages are gathered and a general average derived; the second table is one of the general average of each kind of grain for the twelve years of his publication; the third is the annual average of the Home, Southern and Eastern districts, with their average for the twelve years; and the fourth is the averages of wheat and malt for Oxford and Eton as comprised in the Home district, for Winchester as in the Southern, and for Cambridge

as in the Eastern, my object being to compare the result of the corn rents with the maximum market prices of those districts.

Now I have already commented, in dealing with the several years in Houghton's collections, on the annual averages of the several districts. The general average of wheat for the whole twelve years is 40*s.* 5½*d.*, and is fairly close to the average of the last twelve years of my collection, 43*s.* 4¼*d.* The general average of malt is 24*s.* 1¼*d.* in Houghton, in my series 24*s.* 8¾*d.*; of oats, 13*s.* 8*d.* in Houghton, mine being 15*s.* 2¾*d.*; of beans, 24*s.* 1*d.* and 28*s.* 1*d.*; of peas, 23*s.* 6½*d.* and 31*s.* 0¾*d.* The prices then at the four centres are invariably higher, though in some cases not very markedly above the general average. But the prices in my collections will be seen to correspond much more closely with those gathered from the three districts. In wheat, Houghton's are 42*s.* 5½*d.*, mine 43*s.* 4¼*d.*; in malt, 25*s.* 5¼*d.* and 24*s.* 8¾*d.*; in oats, 15*s.* 1¼*d.* and 15*s.* 2¾*d.*; in beans, 25*s.* 1*d.* and 28*s.* 1*d.*; in peas, 25*s.* 2*d.* and 31*s.* 0¾*d.*, the last contrast being defective in consequence of four years, and in these two of the cheapest failing in my returns. Curiously, the wheat rents at the four centres are 2*s.* higher, and the malt rents 1*s.* lower, than in the averages obtained from Houghton.

The strength which the averages taken from Houghton's collections gives to my own averages is, that they prove them not only to be genuine and accurate, but representative of a larger area than the mere locality would indicate, and I do not regret, considering the results, the enormous labour which I have taken in calculating the averages in Houghton, which represent a total derived from 25,782 entries during the twelve years contained in his collection. The student of local and social history may draw even more inferences from these statistics than I have done.

The subjoined tables contain the following:—

I. The first table contains the annual averages of wheat, barley, malt, oats, oatmeal, rye, beans, peas, and wheat-flour.

In each column, the first entry denotes the price, the second the number of entries from which the average has been calculated, the third the number of localities which have supplied the evidence.

II. The second table contains the decennial and general averages of all the above, except rye. The averages are twofold, one for the whole period, the other for the last hundred years.

III. The third table is a contrast between the wheat rents at Cambridge (St. John's) and the purchases for the bakehouse.

IV. The fourth is a similar calculation for Eton.

V. The fifth is the averages from Houghton's collections, the whole being divided into six districts. Here the first entry in the column is the number of localities, the second the average prices.

VI. The sixth is a general average for the whole twelve years in the various kinds of grain given by Houghton.

VII. The seventh is that of the averages taken from Houghton of the prices in the Home, Southern, and Eastern districts.

VIII. The eighth is of the averages of wheat and malt from the four centres, Oxford, Cambridge, Winchester, and Eton, during the last twelve years.

The following are the statistics of the first table:—

Evidence of wheat is given in 5692 entries from 556 localities.

„	barley	„	443	„	149	„
„	malt	„	3278	„	490	„
„	oats	„	1841	„	487	„
„	oatmeal	„	330	„	154	„
„	rye	„	135	„	37	„
„	beans	„	477	„	213	„
„	peas	„	788	„	225	„
„	wheat-flour	„	284	„	110	„

The statistics of Houghton's collections are:—

Wheat	in 4864 entries	from 632	localities.
Barley	„ 3891	„ 619	„
Malt	„ 3073	„ 576	„
Oats	„ 3635	„ 617	„
Rye	„ 2851	„ 478	„
Beans	„ 2494	„ 474	„
Grey peas	2364	„ 488	„
White peas	2020	„ 426	„ [1]

[1] For notes on the character of the seven scarcity years, 1692–1698, see Tooke's History of Prices, vol. i. p. 30. It is to be regretted that Mr. Tooke, like many other statisticians, has weakened his inferences by taking the civil year from January to January, instead of the agricultural year from September to September. Nothing but confusion and error can ensue from the common practice, which in dealing with corn products cannot be too constantly deprecated.

AVERAGES OF GRAIN.

I. ANNUAL.

II. DECENNIAL.

III. RENTS AND PURCHASES (S. JOHN'S).

IV. RENTS AND PURCHASES (ETON).

V. HOUGHTON'S AVERAGES (DISTRICTS).

VI. HOUGHTON'S AVERAGES (GENERAL).

VII. HOUGHTON'S AVERAGES (HOME, SOUTH, EAST).

VIII. AVERAGES OF THE FOUR CENTRES.[1]

[1] Oxford, Cambridge, Winchester, Eton.

TABLE I.

AVERAGES OF GRAIN.

	Wheat.				Barley.				Malt.				Oats.				Oatmeal			
	s.	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	lo
1583	20	0	14	4	10	4½	5	4	12	3½	14	4	7	4½	8	2	21	6¼	7	
1584	18	9½	27	10	10	8¾	7	5	11	9	16	6	6	8	2	2	20	8½	5	
1585	31	0	34	7	15	2	6	4	17	1½	34	4	8	10	8	3	32	9	3	
1586	45	8¾	13	5	14	0	2	2	19	8¾	21	5	9	0	1	1	30	10	3	
1587	16	0½	24	5	10	6¾	5	3	11	4¾	10	3	7	2¾	13	3	20	5	5	
1588	15	0½	11	4	10	4¾	5	2	11	2	5	2	7	7	8	4	21	5¼	5	
1589	26	11½	8	3	13	10¾	6	3	14	2½	21	5	6	10	6	4	27	4	5	
1590	25	4	16	5	21	1	4	3	21	9	18	3	11	6	2	1	38	8	3	
1591	18	1¼	23	6	13	5	4	3	13	1½	17	3	8	0	12	2	26	9	4	
1592	20	10	17	6	9	2½	6	1	11	8¾	7	3	7	9¼	18	4	22	10	1	
1593	24	8¾	20	3	12	4	2	1	12	9½	22	5	6	1¾	3	1	28	0	4	
1594	37	7½	21	5	16	0	2	1	23	6	19	4	11	3	8	4	38	8	7	
1595	40	9½	23	4	21	4	3	2	23	5¾	21	4	11	10¾	5	3	34	8	1	
1596	56	6¼	35	5	.....				36	10¼	18	3	18	0¼	8	4	80	0[1]	1	
1597	52	4½	20	5	25	5¼	10	2	29	0¼	22	4	14	1¾	10	3	42	8	1	
1598	31	1½	23	3	17	8½	5	1	20	5	22	4	9	11¼	10	3	.....			
1599	29	8¾	24	5	19	0	1	1	19	5½	19	4	9	3¾	7	4	33	9¼[1]	3	
1600	34	9	29	4	25	10½	4	2	23	11	28	5	15	1	9	4	24	0	2	
1601	24	2	41	6	18	5½	4	2	19	4½	27	6	9	10	7	2	28	0	8	
1602	26	9	65	6	19	0	2	1	15	2¼	24	4	8	0¼	18	5	30	8	5	
1603	26	7¼	36	5	10	8	1	1	13	11½	23	5	9	0¾	22	5	29	4	4	
1604	29	7	33	5	15	0	1	1	17	6	20	3	11	6¾	18	5	34	8	2	
1605	27	8½	22	3	19	11	4	2	18	9¼	22	4	11	2	9	2	29	4	1	
1606	31	9½	29	3	16	0	2	1	17	6¼	26	4	9	5¼	14	3	.....			
1607	37	6¼	40	3	17	4	5	2	19	3	33	4	9	10	7	2	.....			
1608	53	0½	39	3	16	8	6	1	26	6	32	4	13	2¼	22	3	50	8	1	
1609	35	2¼	34	3	18	2½	4	2	22	3¾	31	4	12	4¼	27	3	.....			
1610	32	7	35	3	16	10½	2	1	17	11	30	4	11	4	15	3	32	0	1	
1611	37	1¾	38	4	21	3½	7	2	21	2¼	39	5	16	4½	10	1	.....			
1612	41	10	31	3	22	10	4	2	24	3½	27	4	14	8¼	9	3	40	0	1	

[1] Groats.

TABLE I.

AVERAGES OF GRAIN.

Rye.				Beans.				Peas.				Wheat-flour.				
s.	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	
11	10½	14	3	13	8	5	1	11	9¼	3	3	.....				1583
10	8½	5	1	12	0	1	1	13	6	4	1	34	8	2	1	1584
26	6¾	7	2	23	3¾	6	2	18	4	7	2	40	10¼	6	2	1585
31	0	18	2	29	6	4	2	23	8½	13	2	41	8	4	1	1586
9	10	2	1	12	8	2	1	13	8	16	4	32	0	1	1	1587
10	0	1	1	12	2	6	1	22	8	5	2	37	4	1	1	1588
27	1	1	1	14	5	7	1	12	2½	5	1	40	0	1	1	1589
.....				21	1¼	3	1	22	0	1	1	34	8	1	1	1590
.....				16	10½	7	1	.....				29	4	2	1	1591
10	7	1	1	13	5	10	1	11	11½	6	2	29	4	2	1	1592
11	0	8	1	15	1	15	1	12	1¼	6	2	35	6½	5	2	1593
.....				16	3	17	3	21	7¾	14	2	48	0	3	2	1594
34	2½	15	3	19	7	3	1	17	9¾	18	2	66	8	2	1	1595
52	9½	5	1	30	8	3	1	34	9½	17	2	80	0	1	1	1596
36	0	2	1	25	4	2	2	23	2½	21	2	64	0	3	1	1597
22	0	4	1	13	7¾	8	1	14	3¼	20	3	.....				1598
29	4	4	1	16	6½	5	2	14	8¾	21	2	.....				1599
33	6¾	3	1	19	1¾	7	2	22	2¼	20	3	56	0[1]	1	1	1600
28	9½	5	1	19	0	6	2	15	8	9	2	37	4	1	1	1601
18	8	2	1	13	2¼	6	1	16	10	18	3	37	5	8	2	1602
18	8	1	1	14	6	1	1	14	3	12	2	33	11¼	13	2	1603
.....				17	6½	8	1	14	0	10	2	40	0	1	1	1604
.....				17	3¾	9	1	15	3	8	2	41	4	2	1	1605
.....				13	7½	9	1	14	7½	8	2	42	7½	7	1	1606
.....				14	7	9	1	16	2½	15	2	53	4	2	1	1607
.....				21	7½	6	2	19	8¼	20	2	60	4	3	2	1608
.....				17	2½	8	1	20	6¼	18	3	40	0	2	1	1609
.....				17	6½	10	1	16	5½	13	4	41	4	2	1	1610
.....				25	4	4	3	21	5½	12	1	46	8	7	2	1611
.....				32	5	2	1	22	10¾	5	3	62	8	2	1	1612

[1] Groats.

	Wheat.				Barley.				Malt.				Oats.				Oatmeal.			
	s.	d.	ent.	loc.	s.	d.	ent.	loc.	s.	d.	ent.	loc.	s.	d.	ent.	loc.	s.	d.	ent.	loc.
1613	44	8¼	33	3	26	0	2	1	25	5	28	4	14	3¾	28	3	.....			
1614	35	1½	46	5	25	11	7	1	24	6½	33	5	14	0	32	4	34	8	3	
1615	34	2¾	48	6	23	1	3	1	25	1¼	29	5	17	10¼	24	3	53	4	1	
1616	42	7	30	4	23	0	4	1	20	10	19	4	13	10¾	20	3	43	1½	6	
1617	45	1	56	6	18	3½	15	3	20	5	39	5	11	11¼	20	3	37	4	5	
1618	32	7½	54	4	16	1¼	15	3	18	7½	30	4	13	5	15	3	40	0	3	
1619	25	10½	46	4	14	11½	10	2	17	4¼	25	4	12	7	14	2	34	2	1	
1620	25	5	49	4	11	4½	8	2	14	4¾	26	4	10	1½	19	4	32	0	1	
1621	40	9	58	6	21	2¾	13	4	20	5¼	25	4	14	5½	29	5	32	5¾	14	
1622	51	1	59	5	27	2¼	11	3	29	2	25	4	11	9½	15	4	34	10¾	6	
1623	37	8	51	5	19	9¾	10	3	25	3¾	23	4	12	8	2	2	37	4	5	
1624	43	0½	46	4	18	10½	10	3	20	3¼	21	3	14	8	1	1	40	1	5	
1625	48	3¾	45	3	25	2	6	1	25	9¾	22	3	16	0¼	4	1	45	1¼	6	
1626	33	0	52	4	16	1½	12	2	21	2½	21	4	10	0¼	9	5	32	0	4	
1627	26	4¾	50	3	12	11¾	12	3	16	1	21	3	10	2¼	13	5	32	0	4	
1628	32	11¼	54	3	19	1¾	6	2	18	9¾	22	3	12	1½	11	5	36	8	4	
1629	42	1¾	46	3	24	6	5	1	26	0¼	18	3	14	10¼	10	5	50	8	6	
1630	64	6	48	4	38	1¼	6	2	35	1	19	3	21	11¼	14	3	55	8	8	
1631	40	11¼	62	5	24	5	10	4	27	5	25	5	11	9	15	4	74	0	1	
1632	47	3¼	58	4	21	10	8	2	25	8¾	21	4	12	10	9	5	49	9¼	3	
1633	43	9½	57	6	28	6½	5	1	29	11¾	26	5	13	8	7	7	27	0½	7	
1634	41	7¾	52	5	23	7½	7	2	24	11	27	4	13	4¾	4	3	.....			
1635	44	9½	42	4	20	6¼	6	2	23	8½	29	4	16	2	21	3	.....			
1636	43	7¾	43	4	22	5¼	12	3	27	6½	25	4	15	5¾	30	5	61	7	5	
1637	47	9½	46	4	38	6¼	5	1	36	2½[1]	25	4	17	8¾	22	5	50	8	2	
1638	39	4¾	47	4	24	3¾	8	2	29	1	18	3	16	2	19	2	29	0	16	
1639	35	3¼	42	4	17	6	9	2	21	4¾	18	4	11	8¾	15	2	40	8	4	
1640	43	11½	42	3	26	0	7	2	24	11½	14	3	15	1¼	19	3	52	8	4	
1641	36	2½	42	3	21	2½	7	2	22	4¼	18	3	13	2½	19	2	.....			
1642	35	2¼	38	2	19	8½	7	2	20	1¼	19	3	16	10¾	15	4	.....			
1643	33	8½	46	2	19	2	6	2	18	5½	15	2	12	8¼	6	3	37	8½	7	
1644	34	11¼	57	5	17	3¼	6	2	25	5	23	5	14	6½	5	4	44	2	5	
1645	34	9½	67	5	18	6¼	8	1	22	7½	31	5	14	2¼	21	5	41	7½	4	
1646	51	10¼	38	4	22	8	2	2	27	7½	23	5	19	4½	38	10	58	8	2	
1647	62	6	29	5	39	1	3	1	35	0½	21	4	20	11¾	20	6	60	0	1	
1648	67	10½	34	4	41	7¼	1	1	35	6½	22	4	22	7½	25	6	80	6	4	
1649	65	6	59	4	34	8	1	1	34	11	50	4	19	3	18	6	73	6¼	7	

[1] Without the D'Ewes' entries, 41*s.* 3½*d.*

Rye.				Beans.				Peas.				Wheat-flour.				
s.	d.	ent.	loc.	s.	d.	ent.	loc.	s.	d.	ent.	loc.	s.	d.	ent.	loc.	
.....				.....				21	9¾	17	3	44	9¼	12	1	1613
.....				21	1	3	1	18	3¼	21	4	42	8	2	1	1614
21	0	1	1	22	1¼	14	3	27	1¼	12	4	29	7	2	2	1615
.....				16	6¼	14	2	28	1	3	2	.....				1616
.....				16	4	4	1	17	8¼	13	2	52	0	4	1	1617
.....				15	2¼	3	1	14	11	23	2	.....				1618
.....				17	11½	9	2	18	5½	8	2	.....				1619
.....				15	10½	27	2	16	0½	5	3	.....				1620
.....				15	11	9	1	19	8	18	5	51	10	4	1	1621
34	0	4	1	20	7¼	6	1	19	2¾	20	3	61	5½	4	1	1622
34	0	2	1	19	5½	10	2	19	1¼	4	3	47	4	4	1	1623
.....				21	7	3	1	18	10½	13	2	52	5¾	4	1	1624
.....				29	4	2	1	23	6	11	2	50	0	4	1	1625
19	2¾	5	1	18	5½	2	1	12	6	8	2	41	8	4	1	1626
13	5	7	1	18	8	3	1	15	5½	10	2	33	5	4	1	1627
.....				26	6	2	1	19	9½	4	2	41	8	4	1	1628
.....				24	8	4	1	29	4½	4	2	52	6	4	1	1629
.....				.....				34	8	2	2	68	0	4	1	1630
.....				31	0	5	2	24	0	5	2	.....				1631
.....				20	2¾	3	3	21	10½	23	2	55	1	3	1	1632
29	6½	6	2	.....				22	5¼	20	4	.....				1633
26	9¼	4	2	.....				19	1¾	26	1	.....				1634
19	10	2	1	.....				25	2¼	8	2	.....				1635
20	0	1	1	.....				28	8	3	2	61	2	4	1	1636
.....				.....				32	8	3	2	53	2	4	1	1637
24	0	1	1	.....				21	6	4	2	.....				1638
.....				.....				15	1¼	4	2	44	0	4	1	1639
.....				.....				20	0	3	1	52	0	4	1	1640
.....				20	0	1	1	15	8	3	2	.....				1641
.....				19	0	2	1	20	0	1	1	.....				1642
.....				.....				14	8	1	1	42	2	2	1	1643
.....				20	0	1	1	28	9¼	8	5	48	2	2	1	1644
.....				20	0	1	1	17	8½	6	3	52	10¾	3	1	1645
.....				33	5½	4	2	22	4	7	3	67	11	4	1	1646
.....				.....				37	4	3	3	.....				1647
.....				.....				37	4	2	2	80	0	2	1	1648
.....				25	4	2	2	44	6	5	4	80	0	4	1	1649

	Wheat.				Barley.				Malt.				Oats.				Oatmeal.			
	s.	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	lo
1650	55	4	44	4	.....				26	6½	32	5	13	9¼	43	6	65	7	5	
1651	48	10	32	4	.....				25	3½	28	4	17	1¾	38	6	49	0	6	
1652	33	10¾	34	4	17	1	1	1	25	1	30	4	17	9¾	35	6	54	0	1	
1653	25	2½	46	4	15	4¾	6	1	19	5½	23	4	12	4	32	7	44	0	8	
1654	21	8	47	5	13	3¾	6	1	16	10½	29	5	11	3¼	35	7	39	8	6	
1655	33	2¼	51	6	17	7¾	16	2	19	5¾	28	6	13	7¾	38	8	40	10	2	
1656	37	1½	42	4	23	8½	6	1	23	9½	26	4	16	0¾	36	6	51	4	1	
1657	46	5¾	43	6	24	1½	6	2	25	1¾	25	4	14	11¾	35	7	48	8	2	
1658	57	10¾	33	4	.....				29	1	27	4	18	4½	29	5	57	7¼	4	
1659	52	1	43	4	.....				29	10¾	30	4	18	1½	25	5	60	0	1	
1660	51	7¾	44	4	.....				27	5¾	26	4	14	7½	56	6	53	6	1	
1661	70	9¾	49	4	.....				33	6	35	5	21	8¼	60	5	64	0	1	
1662	45	8¾	52	6	18	0	1	1	30	3¼	32	4	16	3	27	6	64	0	1	
1663	46	6½	37	4	18	0	1	1	26	2¾	32	5	14	5	16	6	34	0	1	
1664	39	5¼	48	4	.....				22	4¾	33	4	13	8	17	6	64	0	1	
1665	35	7¾	42	4	.....				22	1	37	4	14	10	8	5	64	0	1	
1666	28	1¼	43	5	.....				19	4	31	4	13	11½	14	5	50	0	1	
1667	31	2½	48	5	.....				20	1½	33	5	16	3½	16	5	48	0	1	
1668	37	10	53	5	.....				22	3	39	4	12	6½	21	5	44	10	1	
1669	33	1½	46	5	.....				22	4½	32	4	13	9	12	4	46	0	1	
1670	35	8¾	44	4	.....				22	2¾	33	4	15	6¾	23	5	52	7	1	
1671	34	0½	44	5	18	8	1	1	19	0½	31	4	12	0¾	10	6	52	0	1	
1672	35	8¼	44	5	.....				19	11¾	29	4	13	10¾	4	4	49	10	1	
1673	54	11¼	61	5	.....				26	4	37	4	15	1¾	10	4	55	0	1	
1674	51	8¾	48	5	.....				29	10¼	33	4	16	9½	19	4	53	6	1	
1675	35	7¾	43	4	.....				22	11	36	4	15	10¾	17	5	54	10	1	
1676	30	9½	54	9	.....				21	1½	41	4	14	6¼	13	4	52	0	1	
1677	46	11	45	6	.....				25	6½	31	4	15	7½	12	4	51	3	2	
1678	53	0½	48	6	.....				23	11¼	51	4	14	3¼	10	5	53	4	1	
1679	38	5¾	37	5	.....				20	4¾	28	4	11	7¼	5	3	53	4	1	
1680	39	7¾	32	5	.....				21	0¾	31	4	12	2¾	4	3	59	5	1	
1681	36	0¾	30	5	24	0	1	1	25	5½	24	4	16	3½	6	4	69	10	1	
1682	34	5¾	32	6	19	0	1	1	25	2	29	4	15	2¼	4	4	64	0	1	
1683	37	4½	33	6	.....				22	5¾	26	4	15	5	13	5	61	0	1	
1684	45	10¾	28	4	.....				24	3¼	28	5	16	8¾	6	4	59	8	1	
1685	28	1¾	33	6	28	0	1	1	23	7¾	28	4	14	10¼	6	3	56	0	2	
1686	32	4	30	5	24	0	1	1	22	3½	26	4	14	9	3	3	56	8	1	

Rye.				Beans.				Peas.				Flour.				
s.	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	
.....				21	8	4	4	22	8	1	1	67	8	4	1	1650
.....				.....				27	4	5	2	56	6	5	1	1651
.....				32	0	1	1	30	$9\frac{3}{4}$	5	3	42	8	1	1	1652
.....				21	4	1	1	22	$4\frac{1}{2}$	6	3	30	3	8	2	1653
.....				21	4	1	1	16	4	4	2	32	8	3	2	1654
.....				22	4	2	2	23	4	3	3	37	8	5	2	1655
.....				26	8	2	2	26	8	1	1	48	0	1	1	1656
.....				.....				21	4	1	1	62	8	2	1	1657
.....				25	4	2	2	26	8	1	1	66	8	2	1	1658
.....				28	0	2	2	24	0	1	1	64	0	1	1	1659
.....				17	4	2	2	22	8	1	1	61	$10\frac{3}{4}$	3	1	1660
.....				20	0	2	2	31	4	2	2	87	3	2	2	1661
.....				24	0	2	2	23	$1\frac{1}{4}$	4	3	53	4	2	1	1662
.....				24	9	5	3	24	4	2	2	50	8	2	1	1663
.....				16	$10\frac{3}{4}$	3	3	19	4	2	2	48	0	2	1	1664
.....				24	$5\frac{1}{4}$	3	3	24	0	1	1	.....				1665
.....				22	$2\frac{3}{4}$	3	3	20	8	2	2	.....				1666
.....				24	$10\frac{3}{4}$	3	3	26	$10\frac{3}{4}$	3	3	42	8	2	1	1667
.....				19	8	6	3	16	6	3	2	53	4	2	1	1668
.....				20	2	4	4	21	0	3	2	45	4	2	1	1669
.....				26	2	5	4	24	8	3	2	43	8	2	1	1670
.....				18	8	3	3	20	8	2	2	46	0	2	1	1671
.....				25	4	4	4	22	8	1	1	52	0	3	1	1672
.....				31	0	4	4	18	0	1	1	.....				1673
.....				30	4	4	4	20	0	4	2	62	8	1	1	1674
.....				25	4	4	4	19	0	4	2	46	0	2	1	1675
.....				23	$1\frac{1}{4}$	3	3	24	0	2	2	.....				1676
.....				27	$8\frac{3}{4}$	8	5	20	0	1	1	59	$10\frac{1}{2}$	5	1	1677
.....				20	$1\frac{1}{2}$	4	4	16	0	1	1	.....				1678
.....				22	6	4	4	.....				.....				1679
.....				22	$11\frac{1}{4}$	6	4	18	8	1	1	60	0	2	1	1680
.....				31	2	6	4	21	4	1	1	48	0	2	1	1681
.....				22	6	4	4	20	0	1	1	.....				1682
18	3	4	1	22	6	6	2	20	0	1	1	48	0	1	1	1683
.....				34	8	3	3	28	8	2	2	52	0	2	1	1684
.....				30	0	3	3	.....				44	0	2	1	1685
.....				34	$5\frac{1}{2}$	2	2	.....				.....				1686

	Wheat.				Barley.				Malt.				Oats.				Oatmeal.			
	s.	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.	*s.*	*d.*	ent.	loc.
1687	27	4	29	5	.....				20	4½	27	4	13	2½	7	4	47	2	1	1
1688	26	9½[1]	49	7	.....				17	11	50	4	11	9¼	4	3	50	8	1	1
1689	29	11¾	37	5	.....				17	1	37	4	12	1¾	7	3	57	8	2	2
1690	28	10¼	45	6	.....				14	11½	36	4	12	0¾	10	4	58	0	2	2
1691	38	1½	29	5	.....				18	10½	26	5	14	8	6	3	59	0	2	2
1692	49	10½	28	6	.....				24	7¾	31	4	17	8	12	5	60	0	2	2
1693	63	5¼	31	5	.....				28	10½	42	5	17	0	5	3	55	7	1	1
1694	36	8¼	33	8	.....				20	9¼	32	4	13	8½	12	4	47	4	1	1
1695	49	11½	32	6	.....				24	1	27	5	16	1	11	3	56	0	1	1
1696	51	4	28	5	20	0	1	1	23	3¾	33	5	14	9¾	11	5	51	7	1	1
1697	62	5¼	28	5	.....				28	0½	38	4	16	10¾	19	4	47	4	1	1
1698	57	2	32	7	.....				34	0¾	37	4	18	9¼	11	4	53	2	1	1
1699	45	1	32	6	30	0	1	1	31	1¼	40	5	14	7¾	10	6	54	0	3	2
1700	31	7	26	7	.....				21	10¾	31	4	13	5	8	4	46	0	3	2
1701	26	7	31	5	17	2	1	1	21	9¾	29	5	13	8¾	12	5	47	8½	1	1
1702	28	1½	32	6	.....				19	3	27	5	12	4	15	5	42	8	1	1

[1] Without Cuckfield, 23*s.* 9¼*d.*

Rye.			Beans.			Peas.			Flour.			
s.	*d.*	ent. loc.	*s.*	*d.*	ent. loc.	*s.*	*d.*	ent. loc.	*s.*	*d.*	ent. loc.	
.....			20	7	3 1	18	0	1 1	44	0	2 1	1687
.....			19	6	3 2	32	0	1 1	44	0	2 1	1688
.....			18	4	3 1	24	0	1 1	46	0	2 1	1689
.....			18	9	6 2	.....			48	0	2 1	1690
.....			20	6	4 1	.....			60	0	2 1	1691
.....			29	0	4 1	40	0	1 1	84	0	2 1	1692
.....			30	0	3 2	48	0	1 1	92	0	2 1	1693
.....			30	0	7 2	20	0	1 1	72	0	2 1	1694
.....			38	0	4 2	.....			80	0	2 1	1695
.....			30	0	4 1	31	8	1 1	80	0	2 1	1696
.....			25	10½	4 1	24	9	2 1	80	4	2 1	1697
.....			28	0	3 1	.....			88	0	2 1	1698
.....			32	0	4 1	34	0½	8 3	54	8	4 3	1699
.....			19	0	2 1	.....			48	0	2 1	1700
.....			20	0	1 1	26	0	1 1	42	8	1 1	1701
.....			24	9	5 3	24	0	1 1	.....			1702

TABLE II.—Decennial Averages.

	Wheat.	Barley.	Malt.	Oats.	Oatmeal.	Beans.	Peas.	Flour.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1583—1592	23 8¼	12 10½	14 5	8 1	26 3¾	16 11	16 7½	35 6½
1593—1602	34 10¼	19 5½	22 4¾	11 5½	37 8¼	19 10	19 4	53 3
1603—1612	35 3½	19 5	19 10	11 10¾	36 0	19 2	17 5¼	46 2¾
1613—1622	37 9	20 8½	21 7½	13 5¼	38 0	17 11½	22 1½	47 1¼
1623—1632	43 7½	22 2	24 2	13 8¼	45 4¼	23 3¾	21 11	49 2
1633—1642	41 2	24 2¾	26 0¼	15 11½	43 3¼	19 6	20 0½	52 9
1643—1652	48 11	26 3	27 7¾	17 3	56 5¾	27 1	28 4	59 9½
1653—1662	47 2¼	18 8¼	25 6	15 8¾	52 4¼	22 10½	23 9¼	54 5¼
1663—1672	35 8¾	18 4	21 7¼	14 1¼	50 6¼	22 3¾	22 0¾	47 7
1673—1682	42 2	21 6	24 2¼	14 9	56 4¼	25 8	19 8	53 3½
1683—1692	34 5½	26 0	20 7¾	14 4	51 7	24 10	27 1¼	52 2½
1693—1702	43 2¾	22 4¾	25 3	15 1½	50 1½	27 9¼	29 9¼	70 10½
Gen. Average.	39 0½	21 0	22 9¼	13 10	45 9¼	22 3¼	22 4¼	51 10¼
Last 100 years.	41 0	21 11¾	23 7¾	14 8½	48 6	23 1½	23 2¾	53 4

TABLE III.

CAMBRIDGE, S. JOHN'S. COMPARISON OF RENT PRICES AND BAKEHOUSE AVERAGES (WHEAT).

	Rent.		Bakehouse.			Rent.		Bakehouse.	
	s.	*d.*	*s.*	*d.*		*s.*	*d.*	*s.*	*d.*
1607	34	7	33	0¼	1637	42	10	42	4½
1608	44	2	40	0	1638	33	10	37	1
1609	29	9	26	6¾	1639	28	8¾	26	8
1610	32	7½	28	3	1640	35	4	33	9½
1611	36	4¾	32	10¼	1641	30	5	28	4½
1612	38	7	36	6¼	1642	28	7¼	27	1½
1613	42	2¼	36	6¼	1643	30	0¾	29	1½
1614	34	1	28	10¾	1644	32	9½	31	0
1615	36	3½	32	5½	1645	33	3¼	32	9
1616	40	3½	37	4½	1646	48	4	47	6¼
1617	40	1¼	34	7¾	1647	62	5½	58	9
1618	29	6½	25	3¾	1648	56	11¼	51	6½
1619	21	11¼	19	5¾	1649	59	2½	56	9
1620	21	5	21	7¼	1650	44	6	41	7
1621	41	4¾	38	0¾	1651	39	0	35	7
1622	46	4¼	40	9½	1652	29	6½	26	9½
1623	37	0¼	35	9	1653	20	11¾	20	11¾
1624	40	0¾	37	4½	1654	20	9½	19	7¼
1625	46	6½	45	4	1655	30	7½	28	0
1626	30	6	26	4¼	1656	35	3	32	10¾
1627	22	3¾	20	1	1657	46	11¼	43	2
1628	30	11¾	29	9¾	1658	52	2¼	48	10
1629	37	0	32	7¾	1659	42	2½	39	3
1630	59	6¼	59	7	1660	49	0¾	39	1
1631	41	5½	40	2	1661	68	4½	72	11
1632	42	5¾	43	0¾	1662	42	9	39	4
1633	41	5½	39	2	1663	44	5½	45	1¼
1634	42	9¾	39	2¾	1664	34	5	33	7
1635	40	11¾	38	0	1665	27	0¾	26	9½
1636	38	11	33	5	1666	24	9½	24	9½

	Rent.		Purchase.			Rent.		Purchase.	
	s.	*d.*	*s.*	*d.*		*s.*	*d.*	*s.*	*d.*
1667	30	5½	26	8	1685	25	6¼	25	4
1668	37	9	33	9¼	1686	28	8½	26	4
1669	31	1¼	30	3	1687	21	1	21	4
1670	35	6	31	2	1688	22	9½	21	0
1671	30	8	28	9	1689	26	3	24	4
1672	33	1¼	34	2	1690	23	11	21	8
1673	47	5¼	46	10	1691	34	2	34	8
1674	46	5	36	8	1692	46	5½	49	4
1675	30	7½	30	2	1693	53	2¼	43	8
1676	27	5	27	3¼	1694	31	1½	29	8
1677	40	9½	39	6	1695	50	4¼	38	8
1678	47	2¼	40	4	1696	48	3	51	8
1679	35	10	35	11	1697	57	3¼	54	2
1680	41	1½	34	8	1698	52	7¼	45	4
1681	32	3	31	2	1699	37	0¼	32	0
1682	31	11½	27	4	1700	29	4½	26	8
1683	32	2¾	35	0	1701	23	4¼	21	4
1684	42	4	37	2	1702	24	11¼	24	4

TABLE IV.

Eton Corn Rents and Purchases of Wheat.

	Rent.		Purchase.			Rent.		Purchase.	
	s.	*d.*	*s.*	*d.*		*s.*	*d.*	*s.*	*d.*
1645	40	3	39	1	1674	62	6½	59	5½
1646	67	4	62	9	1675	40	1¼	33	10¼
1647	80	4	...		1676	35	8¾	36	2¾
1648	86	0	...		1677	55	2½	48	7½
1649	75	2	75	2	1678	60	6½	48	5
1650	71	8	63	8½	1679	44	0	38	2½
1651	58	6½	...		1680	45	8	42	0
1652	38	2¼	...		1681	45	4	36	1
1653	27	3½	...		1682	46	0	40	0
1654	23	4¾	...		1683	38	0	32	9½
1655	42	3½	...		1684	50	8	46	6
1656	41	1¼	...		1685	36	0	31	6
1657	51	5½	...		1686	37	4	35	2½
1658	60	10¾	...		1687	37	0	34	0
1659	60	6½	50	0½	1688	25	0	25	0
1660	58	3¼	53	0	1689	35	4	29	4
1661	88	0	74	7½	1690	34	0	30	2
1662	52	0	47	7¾	1691	41	6	47	1
1663	58	8¾	45	7½	1692	53	0	60	7
1664	48	3	40	11¼	1693	77	8	63	8
1665	43	5½	33	10	1694	42	8	47	10
1666	30	9¼	29	2¾	1695	70	6	53	4
1667	36	0	31	11	1696	55	0	59	2
1668	47	0	43	1¾	1697	66	6	66	3
1669	40	1¼	37	5¾	1698	68	4	61	4
1670	38	2¾	36	8	1699	49	0	44	6½
1671	38	3	37	3¼	1700	38	0	33	3
1672	39	3½	38	10	1701	31	8	27	11
1673	66	3	64	8¾	1702	30	6	34	7¾

TABLE V.—Houghton's Averages. Six Districts.

	Wheat.			Barley.			Malt.			Oats.			Rye.			Beans.			Grey Peas.			White Peas.		
1691—2.	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*
Home	7	43	5½	6	18	6½	7	19	8½	6	15	1¼	5	24	8½	3	21	3½	4	19	5½	2	22	0¾
East	9	36	3½	7	16	1¾	9	16	6	9	13	4¾	10	20	2	3	17	4	9	16	10¾	6	18	4½
Midlands ...	5	32	8¾	5	15	2¾	5	16	2¼	3	9	8½	5	19	4	2	19	7½	2	19	4¾	4	26	5¼
South.....	8	40	0½	6	19	10¼	7	20	3¾	6	12	3¼	4	24	0¾	3	19	4	6	21	2¾	5	23	6¾
South-West	4	39	11¾	4	23	2	3	23	0¼	4	10	10	3	26	5	2	15	10¾	4	20	0¼	3	26	8½
North.....	6	29	8¼	5	14	3½	5	18	1	6	8	9¼	5	26	9½	3	13	4¾	5	12	7	3	21	4
All England		37	0½		18	0½		18	11¾		11	6¼		23	7		17	9¾		18	3¼		23	1
1692—3.																								
Home	11	57	7¼	10	26	7½	8	28	7¾	10	18	1¼	7	34	4	9	26	8¾	9	27	10¾	6	36	5
East	11	50	10	11	23	3¾	11	23	9	11	17	0¾	10	32	0¾	8	24	3	11	27	3	6	33	4¾
Midlands ...	13	43	7¼	13	24	10½	11	26	9	8	14	2¼	9	29	6	8	23	2	7	24	6¾	4	35	1½
South.....	12	50	5	12	24	0¼	9	25	2¼	11	17	4	4	33	6¾	4	25	4	9	30	1¾	8	36	9
South-West	5	40	8¼	5	23	9¼	4	25	11¼	5	12	3	4	30	4¾	2	28	0	5	23	3	2	36	2
North.....	9	38	7½	9	21	8¾	9	22	1¼	9	11	10¼	9	28	10½	6	19	2¾	8	20	1¾	5	34	4
All England		46	11½		24	0¾		25	4¾		15	1½		31	5½		24	5¾		25	6½		35	4¼

1693—4.

	Wheat.			Barley.			Malt.			Oats.			Rye.			Beans.			Grey Peas.			White Peas.		
	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.
Home	10	64	1¾	9	27	7½	8	29	5¼	9	17	4¾	8	39	7¼	9	24	1¾	7	26	9	7	34	4
East	10	54	0¾	10	24	2¼	10	24	7½	10	14	0¾	10	37	5¼	9	23	10½	10	23	0¾	7	33	1½
Midlands ...	11	45	10	11	24	9¼	10	28	4½	11	13	6¾	9	32	3¾	8	19	10¾	8	20	6¾	4	28	8½
South.....	9	54	7½	9	24	9½	7	28	9¾	8	16	2¾	5	31	0¾	6	25	11	7	28	4¼	7	38	2
South-West	8	42	9¾	8	23	3¼	7	28	7¾	8	10	5¾	5	31	6	3	23	10½	7	21	11¼	4	28	3½
North	7	43	1½	6	21	8	6	23	8¾	7	12	0½	6	34	5¾	4	19	7	5	21	1½	4	34	2
All England		50	9¼		24	4½		27	3¼		14	1½		34	4¾		22	10½		23	7½		32	9½

1694—5.

Home	10	41	4½	7	18	7¾	10	22	11¼	10	15	4¼	9	26	1½	9	24	4	7	25	11½	6	30	7¼
East	10	33	1¼	10	16	1¾	10	18	8	10	13	1¼	9	21	9½	9	23	2¾	10	20	9½	8	28	4½
Midlands ...	10	28	6¾	10	14	7¾	10	20	6	10	11	3	9	20	6¾	8	22	10½	10	21	8¾	6	26	2
South	13	36	10	13	16	10	11	18	9½	12	12	5	8	25	3	8	22	5½	11	22	7	8	27	4½
South-West	7	31	2½	6	16	10¾	7	20	2½	7	10	5½	5	20	0½	4	22	6½	6	19	5	4	27	1½
North.....	8	33	3¾	7	17	2¼	7	21	6½	7	10	5½	7	22	2¾	5	18	7	5	18	9¼	4	26	6
All England		34	0¾		16	8¾		20	5¼		11	4		22	8		22	3¼		21	6½		27	10½

1695—6.

	Wheat.			Barley.			Malt.			Oats.			Rye.			Beans.			Grey Peas.			White Peas.		
	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.		*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*
Home	12	53	10¼	12	23	3¼	12	24	10½	12	18	8¼	10	29	11	12	30	11	10	30	6¾	9	39	4
East	7	48	1¼	7	18	6¾	7	20	10	7	15	2½	7	25	1¾	6	29	6	6	24	3	6	27	8¼
Midlands ...	9	40	8½	8	17	0¾	8	21	8¾	8	13	0½	8	21	3¾	7	27	10¼	8	22	11½	6	28	5½
South.....	10	50	0¼	11	20	8¼	9	22	8¼	11	16	3¾	5	25	8¾	9	27	3	8	25	7	8	29	2
South-West	6	40	4¾	6	20	10	4	21	6	5	13	7½	3	22	0	3	23	7	5	24	11¼	3	39	10½
North.....	6	38	6½	7	20	6½	7	23	8¾	7	13	2¾	6	24	3½	6	24	2½	3	17	9	3	27	7
All England		45	3¼		20	2		22	6½		15	0¼		24	8¾		27	2½		24	4		32	0¼

1696—7.

Home	12	52	3¼	12	21	7	10	24	10¾	12	14	7¼	10	29	1	11	27	1	8	28	4¾	7	34	10½
East	10	46	0	9	19	1¼	9	22	11½	8	13	4½	8	25	6	6	29	6	7	24	2¾	7	30	1¼
Midlands ...	10	38	10¾	9	20	1½	9	24	8	9	11	4¼	9	24	10½	8	23	0	8	22	1½	7	26	10
South.....	7	45	4¼	9	21	1	8	26	7	9	16	6½	4	28	0	7	28	11	7	24	11	7	33	9½
South-West	6	46	7½	6	26	11½	4	27	9½	5	13	11½	3	31	2¾	3	23	9¾	4	23	5	3	45	1
North.....	7	38	0	7	23	4½	7	25	4½	7	14	2	7	2	9½	6	24	0¼	5	22	2½	5	27	10
All England		42	10½		22	0¼		25	0½		14	2¼		27	9		26	0¾		24	0¼		33	1

1697—8.

	Wheat.			Barley.			Malt.			Oats.			Rye.			Beans.			Grey Peas.			White Peas.		
	loc.	*s.*	*d.*	loc.	*s.*	*d.*	oc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*
Home	12	62	11¾	12	23	11	11	28	7¼	12	14	6½	10	38	0½	11	25	6¾	9	29	0½	8	38	2½
East	9	54	9¾	7	20	7¼	9	24	10¾	7	11	10¼	7	32	5½	7	24	0	6	23	4¾	5	30	11½
Midlands ...	11	51	8¼	12	25	2¾	11	30	6½	10	13	0½	10	32	8	10	23	8½	11	23	1¾	8	28	8
South.....	10	54	8¼	9	22	1¼	9	27	5	10	15	10	4	29	4	8	31	4¼	7	25	4	7	35	9¾
South-West	8	53	0½	8	27	5½	6	31	8½	7	13	9	4	41	7½	4	26	8	4	19	8½	4	39	5¾
North.....	5	47	5½	5	22	11¼	5	27	7¾	5	16	5½	5	35	10½	5	27	8½	4	24	2¾	5	38	4½
All England		54	3¼		23	8½		28	5½		14	3		35	0		26	6		24	1¾		35	3

1698—9.

Home	12	59	0	12	29	6½	12	34	3¾	12	19	6½	10	36	11	12	29	3¾	9	29	7½	9	37	4½
East	7	52	6	5	24	8¾	7	29	0	8	14	10½	6	36	1½	6	27	6¼	4	22	3½	4	31	1½
Midlands ...	12	51	4¼	13	27	10½	12	35	4	12	16	7	10	34	1	10	27	5½	11	25	2½	8	31	5½
South.....	10	52	1¾	10	24	2	10	27	11½	11	17	8¼	5	33	0	8	28	11¾	7	27	5¾	6	32	6½
South-West	8	46	10¼	8	27	11¾	7	32	10¼	7	13	9	4	34	4	4	25	11½	4	21	1¼	6	37	2
North.....	4	52	0¾	4	28	5¾	4	33	0	4	18	9¾	4	40	2	4	31	2	5	31	9½	4	41	11½
All England		52	4		27	1½		32	0¾		15	8¾		35	9¼		28	4¾		26	3		35	3¼

1699—1700.

	Wheat.			Barley.			Malt.			Oats.			Rye.			Beans.			Grey Peas.			White Peas.		
	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.	loc.	s.	d.
Home	13	42	2½	13	25	2¾	13	27	11¼	13	18	6	10	29	5¼	13	30	4¾	11	28	6½	10	35	7½
East	7	38	7	7	24	0	7	24	11½	7	14	10¼	6	26	11½	5	30	0¾	4	27	4	5	32	10¼
Midlands ...	9	39	8½	9	26	5½	9	31	5	9	16	0	8	30	0½	8	28	2¼	8	26	3½	8	33	1½
South.....	11	40	6¼	11	23	4	9	25	7½	11	17	0	5	29	7	8	27	0	8	28	2¾	7	32	8
South-West	8	38	0¾	8	25	5¼	8	28	6½	7	14	8½	4	29	10	4	24	8¼	4	21	5½	6	35	7¼
North.....	6	41	2¾	5	22	6½	5	27	5¼	5	12	11½	5	31	5¾	5	24	5	5	27	4½	4	38	9
All England		40	0½		24	6		27	0		15	8		29	6¾		27	5½		26	6½		34	9¼

1700—1.

Home	13	30	6¾	13	18	10	13	21	2	13	12	9½	10	21	6	11	24	3½	11	23	6	10	29	6¼
East	7	26	6½	7	19	2½	6	19	4¼	7	14	4¾	6	20	8¾	6	24	6½	4	22	8	5	33	0¾
Midlands ...	6	26	2½	6	17	11½	5	19	5¼	6	11	8¾	5	19	9½	5	22	4	5	21	2¼	4	27	3¾
South.....	11	28	10	10	21	2¾	8	20	10	10	15	1¼	5	22	5	7	26	6	8	27	5	7	31	9
South-West	7	33	4¾	7	23	6	7	24	3	6	14	7¼	4	25	3	3	26	5½	4	20	10½	6	33	0½
North.....	5	35	0	5	21	4¾	5	22	3¾	5	11	6½	5	26	11½	5	22	2	5	26	4½	5	35	0¾
All England		30	1		20	4¼		21	2¾		13	4¼		22	9¼		24	4½		23	8		31	7½

	Wheat.			Barley.			Malt.			Oats.			Rye.			Beans.			Grey peas.			White peas.		
1701—2.																								
	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*	loc.	*s.*	*d.*
Home	13	26	9½	13	18	8¼	13	21	4¼	13	13	4¼	11	18	10	12	21	10	11	22	10	9	29	1¾
East	9	23	10	9	18	4½	9	20	3	9	12	8¼	7	19	6	6	20	1¾	6	22	3¼	6	31	10¾
Midlands ...	6	21	4	6	17	1¼	6	19	11¾	5	10	4	5	16	5¾	5	19	0¼	5	20	1¼	3	22	8
South.....	12	24	4½	10	18	11¾	10	20	10¾	11	14	0½	5	19	0¼	8	23	6½	8	26	3¼	7	31	6¼
South-West	7	26	4¾	7	20	1½	7	23	5½	7	12	7¼	4	20	6	3	26	8	4	19	9	6	30	6¾
North.....	5	27	6¾	5	19	3¾	5	21	6½	5	10	11	5	23	0¾	5	20	0½	4	22	0¾	4	33	2¼
All England		25	0		18	9¼		21	3		12	3		19	6¾		21	10½		22	4½		29	10
1702—3.																								
Home	12	29	11¾	12	15	6½	12	21	1	12	13	9½	9	19	6½	12	19	4½	10	23	7	9	28	11¾
East	8	27	3½	8	15	1	8	20	10	8	12	11¼	7	20	4	5	18	6	5	22	0¾	6	32	6
Midlands ...	6	21	9¾	6	15	2	6	19	7¼	5	9	8½	5	17	7½	5	18	1	5	20	5¾	3	22	8
South.....	10	27	3¾	10	15	0	10	20	6¾	10	14	3½	5	20	0	8	21	5¾	8	25	2	6	29	7¼
South-West	7	26	4¾	7	16	8¾	7	21	3¼	7	12	3¾	4	21	4¼	3	22	4½	5	21	4½	6	29	3
North.....	5	28	3	5	17	7	5	22	0¼	5	11	4	5	23	5¼	5	18	5½	4	22	0¾	4	33	4
All England		26	10		15	10¼		20	11		12	4¾		20	4½		19	8½		22	3½		31	0½

TABLE VI.—Houghton's Averages. All England.

	Wheat.	Barley.	Malt.	Oats.	Rye.	Beans.	Grey Peas.	White Peas.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1691–2	37 0½	18 0½	18 11¾	11 6¼	23 7	17 9¾	18 3¼	23 1
1692–3	46 11½	24 0¾	25 4¾	15 1½	31 5½	24 5¾	25 6½	35 4½
1693–4	50 9¼	24 4½	27 3¼	14 1½	34 4¾	22 10½	23 7½	32 9½
1694–5	34 0¾	16 8¾	20 5½	11 4	22 8	22 3¼	21 6½	27 10½
1695–6	45 3¼	20 2	22 6½	15 0¼	24 8¾	27 2½	24 4	32 0¼
1696–7	42 10¼	22 0¼	25 0½[1]	14 2¼	27 9	26 0¾	24 0¼	33 1
1697–8	54 3¼	23 8½	28 5½	14 3	35 0	26 6	24 1¾	35 3
1698–9	52 4	27 1½	32 0¾	15 8¾	35 9¼	28 4¾	26 3	35 3¼
1699–1700	40 0½	24 6	27 0	15 8	29 6¾	27 5½	26 6½	34 9¼
1700–1	30 1	20 4¼	21 2¾	13 4½	22 9¼	24 4½	23 8	31 7½
1701–2	25 0	18 9¼	21 3	12 3	19 6¾	21 10½	22 4½	29 10
1702–3	26 10	15 10¼	20 11	11 8¾	20 4½	19 8½	22 3½	31 0½
General Average.	40 5½	20 5¾	24 1¼	13 8	27 3½	24 1	23 6½	31 10

[1] Malt tax imposed in 1697.

TABLE VII.—HOUGHTON'S ACCOUNTS. AVERAGES. HOME, SOUTH AND EAST.

	Wheat.	Barley.	Malt.	Oats.	Rye.	Beans.	Grey Peas.	White Peas.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1691-2	38 11	18 2	18 10	13 7	22 11¾	19 3¾	19 2¼	21 4
1692-3	52 11½	24 7¾	25 10¼	17 6	33 3¾	25 4¼	28 5¼	35 6¼
1693-4	57 11¼	26 10½	27 7½	15 10¾	36 0½	24 7¾	26 0¾	35 2½
1694-5	37 1¼	17 10	20 1½	13 7½	24 4¾	23 4	23 1¼	28 9¼
1695-6	50 4	20 10	22 9½	16 9½	26 11¼	29 2¾	26 9½	31 8¾
1696-7	47 10½	20 7	24 9¾	14 10	27 6¼	28 6	25 10¼	32 11
1697-8	57 6	22 2½	26 11¾	14 1	33 3¼	26 11¼	25 11	34 11¾
1698-9	54 6½	26 1¾	30 5	17 4½	35 4½	28 7¼	26 5½	33 4¼
1699-1700	40 5¼	24 2¼	26 1¾	16 9½	28 8	29 1¾	28 0½	33 8½
1700-1	28 7¾	19 9	20 5½	13 9¼	21 6½	25 1¼	24 6¼	31 4¼
1701-2	25 0	18 8	20 10	13 4¼	19 1½	21 10	23 9½	30 10¼
1702-3	28 2¼	15 2½	20 6	13 8	19 11¾	19 9½	23 7¼	30 4¼
General Average.	42 5½	21 3	25 5¼	15 1¼	27 5	25 1	25 2	31 8

TABLE VIII.

Averages of Oxford and Eton, Cambridge, Winchester, to compare with Houghton's Home, East and South.

	Wheat.		Malt.	
	s.	*d.*	*s.*	*d.*
1691	39	$0\frac{3}{4}$	17	$7\frac{3}{4}$
1692	50	$4\frac{1}{2}$	23	$6\frac{3}{4}$
1693	64	$2\frac{1}{4}$	28	2
1694	37	$1\frac{1}{2}$	21	$2\frac{1}{4}$
1695	59	$0\frac{1}{4}$	25	$3\frac{1}{4}$
1696	52	$1\frac{1}{2}$	24	$2\frac{1}{4}$
1697	62	$3\frac{3}{4}$	27	4
1698	61	$0\frac{3}{4}$	33	$3\frac{1}{4}$
1699	43	$2\frac{1}{4}$	30	$2\frac{1}{4}$
1700	34	$3\frac{1}{4}$	21	$6\frac{1}{2}$
1701	27	8	22	$8\frac{1}{4}$
1702	27	$8\frac{3}{4}$	18	$2\frac{3}{4}$
Average.	46	6	24	$5\frac{1}{4}$

CHAPTER VIII.

ON THE PRICE OF HOPS.

HOPS were cultivated and employed to flavour beer in Flanders long before they were used or planted in England. When they were introduced, it was first into the Eastern counties; and all my earlier entries in the third volume, page 254, are from Norfolk. In 1527, more than forty years after their first use in Norfolk, they are bought for Sion, that is virtually in London. In the same year they are returned from some place in Wilts, and are spoken of as purchased at Frome, Bristol and London, i. e. were most likely foreign. A little later and they are found at Lewes. In 1541, King's College, Cambridge, begins to buy them, and from 1577 uses them regularly, at first almost certainly from foreign sources. As the King's College accounts are almost perfect, the entries scarcely fail for this place, which regularly brewed its own beer. Eton too gives information for nearly every year in which its accounts are preserved. Some other places too give prices. Unfortunately, King's College gives no entry under 1642, and the accounts of Eton are lost for 1641–42.

The cultivation of the hop was naturalised before 1576 (probably at a recent date, and no doubt introduced by the Flemings who fled into England to escape Alva's persecution), as we know by a work of Reynold Scot, published in that year. That this branch of agriculture had been traditional in Flanders is illustrated by the name Houblon, one of the persons so named having fled from Flanders and settled in England,

where one of his decendants became the first Governor of the Bank of England, two of the Governor's brothers being also Directors. It was cultivated experimentally all over England, and it was only after a long time, and the experience of loss, that it became restricted to peculiar spots, which were found to be particularly fit for it. I have traced the experiment at Eton through several years, and have noted the disappointment of the Fellows at the total failure of the project.

While hops were being cultivated in England, they were also imported from Flanders. The first year in which English hops are named is 1590. The first year however in which Flemish and English hops are distinguished is 1602, when both are bought at Cambridge. These were almost certainly purchased at Stourbridge fair, whence the Shuttleworths of Gawthorp Hall regularly procured their stock.

The price of hops is subject to prodigious variations. The yield of this plant is notoriously precarious even now, but the crop must have been exceptionally capricious at that time, before the proper soil and the proper treatment of the plant were discovered. This variation happens not only in successive years, but even in the same year. Thus Cambridge in 1602 buys some at 224*s.* the cwt.; Eton some at 80*s.* In 1606 the average at Cambridge is 69*s.* 2*d.*, in 1607 it is 159*s.* 8*d.*, and in 1608 40*s.* Generally Flemish are cheaper than English hops, but not invariably. In 1607, Flemish hops are 74*s.* 9*d.* at Eton, English 151*s.* 8*d.* But in 1623, Flemish hops are at 55*s.*, English at 43*s.*

Still, apart from these fluctuations, due to the caprice of the climate and the risks of the plant's fertility, it is possible to trace the upward movement of prices during the seventeenth century, when we analyse and average the years and the decades of years. The price of hops, it will be seen, goes steadily but slowly up during the first sixty years, falls a little in the next ten, then rises, and is very high in the last decade. It is highly probable that this steadying of the price upwards is due to the growing use of the plant. In the

sixteenth century, ale, the old name for malt liquor, came to mean a brewing without hops; beer, that which was flavoured with the plant.

The Winchester entries, which, owing to the unhappy loss of this corporation's accounts, do not commence till 1644, call hops *lupi salicti*. I was a good deal puzzled with this name, but soon found out what it must mean, and I discovered that it was the word used for this plant, or supposed to be used for it, by Pliny, who describes the young shoots of the plant as a pot-herb (Nat. Hist. xxi. 50).

The price of Flemish hops is sometimes so much lower than that of English, that in order to avoid giving a false impression as to the market value of the produce, I have been constrained to omit them from my yearly averages, when they have been named. But it is very possible that some of the Cambridge entries are of Flemish hops not designated. It is clear from the Gawthorp purchases that Stourbridge fair was a great mart for this produce. The only hint one can get as to the place where the hops were bought, when the origin is not designated, is from the time at which the purchase was effected, for Stourbridge fair was held in the early part of September, and therefore comes into the agricultural year, which bears the date of the year before that of the actual crop.

There is no relation whatever between the price of grain and the price of hops, beyond this, that when hops as a rule are dearest, wheat as a rule is cheapest. But one can draw no inference from this, for in some few years hops and wheat are both dear, and so one is debarred from concluding that in straitened times there was parsimony in the consumption. The only relation which one can detect is a monetary one; that, on an average, half a hundred-weight of hops cost for the period contained in these volumes rather more than a quarter of wheat.

The highest prices of hops are in the ten years at the conclusion of the period. They are higher in my accounts than in those of Houghton, but not markedly so, for the average of

Houghton's twelve years is 117*s.* 9*d.* and of the last twelve years of my register 124*s.* 10¼*d.*; a very trifling difference, though useful as indicating the assistance which statistics of different origin give each other, for during these twelve years Houghton's markets are on an average more than six times as numerous as mine[1]. Width of course of acreage tends to equalise the result, narrowness makes the inference uncertain. Fortunately, my entries are from localities which were very accessible, and therefore less open to the risk. Oxford does not buy hops till 1692, when New College fitted up a College brewery. It is very likely that the excise on beer may have determined the action of this corporation in resorting to private brewing. It was notorious, and was often commented on during the latter part of the seventeenth century, that the excise on beer gave a great stimulus to private brewing and led to the malt tax of 1697. But as the excise on beer was continued with the malt tax, the impulse towards private brewing was not met. Houghton had an Oxford correspondent who supplied him with hop prices for the first five years of his collections. The New College accounts are lost for 1701 and 1702.

I shall now proceed to deal with the yearly prices in detail, and to try whether on looking at the facts, in the aggregate or by particular years, there can be found any guide or even hint as to a discovery of recurrent causes for high and low prices.

1583. Evidence from Cambridge, Eton and Worksop. The price is the lowest recorded, and the lowest rate is at Eton, where over 13½ cwts. are bought.

1584. The same localities give prices. It is again cheapest at Eton.

1585. Four localities, Kirkby Stephen in Cumberland giving numerous entries. The lowest price is still Eton. The Kirkby Stephen average on thirteen averages, purchases being made monthly, is 54*s.* 8*d.*

1586. Four localities. Eton is the cheapest.

1587. Five localities. Cambridge is the cheapest. But the prices are generally low when large purchases are made.

[1] Houghton has 195 localities for the twelve years, I have 31.

1588. Four localities. The price rises as the summer goes on. Eton gives the lowest average.

1589. Four localities. The price is a good deal higher. Five separate purchases are made at Cambridge (average 60*s.* 6*d.*), four at Eton (55*s.* 10*d.*). The price is lower in the later purchases.

1590. Two localities. Hops very cheap. Large quantities bought at Cambridge and Eton; the latter described as English. Up to this time it seems likely that much of the hops bought was of foreign origin.

1591. Four localities. Hops much cheaper at Eton than elsewhere. The Gawthorp purchase is made at Stourbridge fair, and is the highest of the year.

1592. Three localities. The cheapest at Worksop, but only small quantities purchased.

1593. Three localities. Hops very cheap, especially at Cambridge, where a very large quantity (nearly 14 cwts.) is bought. Of these, 7 cwts. are bought at Stourbridge.

1594. Four localities. Hops very cheap. The lowest price is at Cambridge.

1595. Three localities. The lowest price is at Stourbridge fair, a purchase by Shuttleworth. The small purchases at Worksop raise the average perhaps unduly. Eton is undertaking a hop-garden of its own.

1596. Two localities. The price at Cambridge is low.

1597. Two localities. The price at Cambridge is unchanged. 1596 and this year are the two years of the great famine in Elizabeth's reign.

1598. Three localities. The price at Eton low, though the home crop was a failure. The other purchases are small.

1599. Three localities. The Cambridge price low, and the same as that of Eton in the previous year. The other small purchases high.

1600. Three localities, but two of them recording only small purchases. The Cambridge entry (5½ cwts.) is at 40*s.*

1601. The price from the only source of information, Cambridge, is much higher than in the previous year.

1602. Three localities. Eton has now acknowledged that its hop-garden is a failure, though it is still continued. The price at Cambridge is very high indeed, the average being 187*s.* 1*d.* That of Eton is 106*s.* 8*d.* Some of the Cambridge purchases are of English, some of Flemish hops.

1603. The Cambridge price is comparatively low, 56*s.* That of Eton is much higher.

1604. Three localities. The Eton price is slightly higher than that of Cambridge: in both the price is what would at that time be considered moderate.

1605. Three localities. The Cambridge price is considerably higher than that at Eton. The small quantities purchased for Gawthorp are at an intermediate rate.

1606. Cambridge and Eton only, and considerable purchases at each. During the greater part of the year the price at Cambridge is lower than that at Eton, but a small purchase in August at 130*s.* 8*d.* sends up the average.

1607. The price at Cambridge is very high, 159*s.* 8*d.* The Eton purchases are almost entirely of Flemish hops, which it buys at less than half this price. But it also buys a quarter of English hops at 151*s.* 8*d.*

1608. Three localities. Cambridge buys over 7 cwts. at 40*s.*, Eton a small quantity of Flemish at 65*s.* 1*d.* Theydon Gernon makes two purchases, one at an exceedingly low rate, the other at an exceeding high one.

1609. Three localities. Cambridge buys at 63*s.* Eton buys English at 60*s.*, and Flemish at a slightly lower average. Shuttleworth buys a quarter in June at 76*s.*

1610. There is no other entry than that from Cambridge, where the price is very low.

1611. Cambridge and Eton supply prices. That of Cambridge is high, of Eton low.

1612. Cambridge and Eton have nearly the same price.

1613. The same lowness of price prevails in both places.

1614. The prices at Cambridge and Eton are nearly identical. The Eton purchases are mainly of English hops. But it buys also some Flemish at a low price, 49*s.* I have not included this in the averages.

1615. Four localities. Prices are moderate; 46*s.* at Cambridge, 56*s.* at Eton for English hops, 49*s.* for Flemish. At Theydon Gernon the price is 54*s.*, on Cranfield's lands 56*s.*

1616. King's College buys 8 cwts. at 90*s.*, Eton 2½ cwts. in January at 50*s.*, and some Flemish hops in May and August at 42*s.* 8*d* and 38*s.*

1617. Cambridge fails for this year, the mundum and particular books of King's College being both lost. All the Eton purchases are Flemish, and at low rates. Shuttleworth buys probably English produce at much higher rates.

1618. Four localities. The second purchase at Cambridge is at a very high price. Eton buys both Flemish and English, with little difference in the rate of each. Shuttleworth buys a cwt. in Septem-

ber, probably at Stourbridge, at 107*s.* 8*d.*, at which time I have little doubt that the second Cambridge price was given. There are several dated purchases made at Theydon Gernon, the price being very high from October to July, and falling greatly in September, but giving on an average a price of 126*s.*

1619. Eton alone gives evidence, and buys only Flemish hops.

1620. Three localities. The price of hops at Cambridge is very high. Eight different purchases are made at an average of 130*s.* 6*d.* Eton makes three purchases of Flemish hops at an average of 64*s.* 9*d.*, and one of English at 132*s.* Theydon Gernon buys at 149*s.* 9*d.* in June and at 63*s.* 8*d.* in September.

1621. Three localities. Cambridge makes seven purchases at an average of 110*s.* 9*d.* The Gawthorp stock bought at Stourbridge is at 78*s.*, and is therefore, though dated in October, obtained in September. Eton buys Flemish hops only, at 74*s.* 7*d.*

1622. Cambridge buys at 90*s.* Eton buys a large quantity of Flemish, and a small quantity of English produce, the former at 62*s.* 6*d.*, the latter at 118*s.*

1623. Three localities. The Cambridge price is low, 43*s.* 6*d.*, and is almost exactly the same as the Eton purchases of English hops, 43*s.* Flemish for once are dearer than English. The Theydon Gernon price is 56*s.*

1624. Cambridge and Eton prices are both low, the former being a little higher. The Eton purchases are of English hops.

1625–6. Prices are low in both these years at Cambridge and Eton. The Eton prices are of English hops.

1627. There is a sudden and great rise in price at Cambridge, the average being 124*s.* Eton makes six different purchases. It procures some at the low rates of the previous year, 42*s.* But in March, hops reach 125*s.*; and some new ones later in the year, 180*s.*

1628. Prices are exceedingly high. Cambridge buys a comparatively small amount, having made double its average purchases in the previous year. The price is 170*s.* Eton buys some, certainly Flemish, at 60*s.*, and gives 150*s.* 4*d.* for its English hops.

1629. Prices fall considerably. Cambridge buys a large amount. Eton buys a small quantity at a high price, and a large amount in February and June at a low price.

1630. The Cambridge price is higher than that of Eton, where English hops are very cheap.

1631. Cambridge gives a high price for a comparatively small quantity, less than 2 cwts. Eton buys English hops much more cheaply.

1632. Three localities. Cambridge buys at 64*s.*; Eton at 111*s.* 6*d.*; Harting, the seat of the Caryls, at 100*s.*

1633. Prices are still high. Cambridge buys at 112*s.* D'Ewes makes his purchases at an average of 113*s.* 4*d.* Eton buys some at a low price, and in April, June and July considerable quantities at 90*s.*

1634. Three localities. The stock for Cambridge is at 88*s.* D'Ewes buys at 112*s.*, Eton at 100*s.*

1635. No purchases are made at Cambridge. D'Ewes gives 123*s.* 8*d.* Eton buys at 89*s.* 5*d.*

1636. Three localities. Cambridge buys at 90*s.* D'Ewes buys largely at 96*s.* 6*d.*, and Eton at 100*s.*

1637. Cambridge buys very largely at 66*s.* 4*d.*, and probably when the prospects of the coming crop were good. Eton begins to buy at an average of 105*s.*, but purchases in June at 95*s.*, and in August at 75*s.*

1638. Four localities. Prices are generally very low, extensive purchases being made at three of the places. But prices are a good deal higher for small quantities in the fourth place, Mendham.

1639. Prices are low at Cambridge and Eton.

1640. Eton is alone represented, and prices are still low.

1641. Only Cambridge prices are found. The prices are high, and a very large quantity, 14 cwts., are purchased. I imagine that the second entry is for the next year, as no purchase is made at Cambridge in 1642. The accounts for Eton are entirely lost for 1641 and 1642.

1643. Only small quantities, and those at high prices, are purchased by King's and Eton Colleges.

1644. With this year the domestic accounts of Winchester commence, and are continuous, though sometimes the scribe gives the price of his purchase, but renders his entry useless by omitting the quantity. Prices are low. With this year the King's College prices disappear. The Corporation during the civil troubles began to buy of the brewer.

1645. Three localities give low prices, as Eton and Winchester also do in 1646.

1647. Prices are low in Winchester, and for a part of the year at Eton. But a second and large purchase is high. In 1648 Winchester alone supplies prices.

1649. Prices are very high at Eton, but only a little higher at Winchester.

1650. A small quantity is purchased at a high price by Winchester, and a large quantity at a very low one. The Winchester price in this and in the next year, when it alone supplies information, only varies slightly.

1652. Eton prices are at a full average.

1653. Eton prices are much higher, and Winchester are considerably exalted.

1654. There are three localities in this year. Eton and Winchester are at nearly the same price; Mounthall, which buys only small quantities, gives an average of 173*s.* 5*d.*

1655. Four localities. Hops are very dear, at an average of 160*s.* 2*d.* at Eton, of 158*s.* at Horstead Keynes and Mounthall, of 129*s.* 10*d.* at Winchester.

1656. Hops are very dear, and almost at the same average price in Eton and Winchester.

1657. Most of the Eton purchases are at high prices, some, at the later part of the year, are at much lower rates. The prices at Horstead Keynes and Winchester are nearly identical, 73*s.* 4*d.* and 75*s.* 3*d.*

1658. There is little difference between the Eton and Winchester average.

1659. The Eton entries are numerous, beginning with high and ending with low prices. The Winchester average is low.

1660. The average is generally low, as is also that of 1661 and 1662.

1663. The early prices at Eton are high; but those of Winchester are much lower. In 1664 there is no material difference between the two sources.

1665. The prices are very high, higher at Winchester than at Eton.

1666. The Horstead Keynes entry is low. Winchester is up to the average. Eton fails.

1667–1671. For these five years low prices rule, and there is no material difference in the two localities.

1672. The entries from Eton are numerous, and the average is high, 119*s.* 4*d.* At Winchester the price, though rather higher, is little more than half that of Eton.

1673. At Eton the price is high at first, and remains rather high. At Winchester it is moderate.

1674–5. The price is high at both places.

1676–1678. The price declines gradually. In the first year it

is 78*s.* 7*d.* at Eton, 74*s.* 8*d.* at Winchester. In the next it is cheaper at Winchester. In the next only Eton is represented, and the price is lower.

1679. The price is very low in both, lower than in any year since 1583. In 1680 it is also low.

1681–2. There is no material difference in the two quotations.

1683. The price is again nearly fifty per cent. higher at Eton.

1684–86. The price is generally high, especially in small purchases.

1687. The price is far higher at Winchester than at Eton, and in a less degree in 1688.

1689–91. The price is uniformly low, as are also Houghton's prices, eighteen in number, in the last of these three years.

1692. The Eton prices are low. At New College, Oxford, which begins to brew on its own account, prices are low. At Oxford and Winchester, if I can take the bag and the hundred-weight as identical, they are moderately high. Houghton's prices, twenty-five in number, give variable returns, from those of the North, 160*s.*, the dearest, to those of Rochester, 28*s.* 6*d.*, the cheapest. The London price is 80*s.* 2*d.*

1693. Houghton gives twenty-nine localities. Of these the highest are at Appleby and Huntingdon, each 160*s.* But at Chichester the price is 140*s.* The lowest price again is Rochester, 37*s.* 10*d.* In the three localities which my accounts give the price supplies a lower average.

1694. Houghton gives twenty-two localities. The dearest is Farnham, 152*s.*; the cheapest, London, 97*s.* My averages from Eton and Oxford are nearly the same as Houghton's general average.

1695. Prices are very high. The average of Eton and Oxford is 190*s.* 8¼*d.* Houghton gives fifteen localities, none of which is so dear as either of the two above named.

1696. Houghton gives fourteen localities. Of these, one alone, Warwick, 220*s.*, is dearer than the market price at Eton and Oxford. The London price is 173*s.* 1*d.*

1697. Hops are exceedingly dear. Houghton gives twenty-one localities, of which the highest is Pembroke, 293*s.* 8*d.*, the lowest Sandwich, 140*s.* My average is 231*s.* 9*d.*, the highest of the whole period; Houghton's, 208*s.* 8*d.*

1698. My accounts supply three localities, with an average of 224*s.* 4*d.*; Houghton nineteen, with an average of 214*s.* 7*d.* The highest of these latter prices is at Stafford, 280*s.*; the lowest, Cambridge, 160*s.* The London price is 211*s.* 8*d.*

1699. Prices are falling. But at Oxford and Winchester they are still abnormally high. The average price in Houghton's ten localities is 112*s.* 5½*d.*, the highest being that at Pembroke, the lowest, 80*s.*, at Dunstable and Bury. The London price is 94*s.* 7*d.*

1700. Houghton's localities are eleven. The highest price is at Falmouth, 100*s.*; the lowest London, 70*s.* 7*d.* I have four localities. At Eton, hops are very cheap. In Oxford they are above the average, but slightly. In Winchester the average is nearly that of Oxford. At Harting they are dear.

1701. Houghton gives ten localities. In all, hops are cheap; cheapest at Hitchin. The London average is 48*s.* 3*d.* The Eton price is low, the Winchester is higher.

1702. The price is higher. There are only two localities in Houghton. Mine are three. Hops are dear at Harting and Winchester, but cheap at Eton.

It will be seen below, that the general average of the 120 years is 82*s.* 9½*d.* Now in the first place, the price of hops is progressive, i.e. for the first sixty years, it rises in every decade. This rise I am convinced is due to the increasingly diffused use of the article. It was only by degrees that all beer was hopped in the brewing, and the distinction which grew up between ale and beer was lost. In the next, as I have already stated, there is no relation between a scarcity price for bread and a scarcity price for hops. This I conclude is due to the natural stint in the use of the article when most kinds of food were dear. In the decade 1643–1652, when the price of wheat is highest, there is a decided fall in that of hops. The highest rate is that of the decade 1693–1702.

In the first decade, the price never rises to the average. In the second, it does so once. In the third, it does so once. In the fourth, it does so four times, and dear years begin to appear in groups. In the fifth, four times. In the sixth, five times. In the seventh, twice. In the eighth, six times. In the ninth, twice. In the tenth, four times. In the eleventh, five times. In the twelfth, eight times. In the earlier decades therefore a high price was exceptional. But as time goes on,

we have groups of two, three, four, and five consecutive years of scarcity prices, and I conclude that at the end of the period, as I have already said, the use of hops had become general, and that the price represents the abundance or dearth of an article in habitual demand.

There is no evidence that the hops of particular districts or of particular growths commanded higher prices than others did. The experience which has discovered that different soils or different kinds of culture develop more or less valuable properties in the produce was as yet unacquired.

The variations in the price of hops during the 120 years of this enquiry may be compared with those given in the second volume of Tooke's History of Prices, p. 404, where the same facts of groups of dear and cheap years are exhibited. This list is from 1782 to 1838 inclusive, is of Kent yearlings, and includes the duty, and the average is 131*s.* 4½*d.*, a rate indicating that, considering the change in the value of money and the rise in rents, the price of this produce had not materially increased, if indeed the cost of production had not been considerably lessened, though in some of the years of Tooke's list the price is more than double any that is registered before. In this list, the rates from 1812 to 1818 inclusive strongly resemble, for exceptionally high prices, those which ruled from 1694 to 1699 inclusive, after an interval of 118 years.

The following tables are of the yearly averages of hops, of the decennial averages, and of those derived from Houghton's entries.

Averages of Hops (cwt.).

	s.	*d.*		*s.*	*d.*		*s.*	*d.*		*s.*	*d.*
1583	28	11	1613	34	0	1643	116	8	1673	95	1
1584	34	5	1614	65	5¾	1644	57	3	1674	116	11
1585	46	1	1615	53	0	1645	56	2	1675	121	5
1586	43	8½	1616	70	0	1646	41	5¼	1676	76	7½
1587	44	4	1617	60	5½	1647	66	1½	1677	62	0
1588	50	1½	1618	98	5½	1648	63	9	1678	53	0
1589	59	6½	1619	73	10	1649	143	7	1679	33	6½
1590	30	4¾	1620	124	1	1650	79	3½	1680	46	10
1591	50	2¾	1621	87	9	1651	61	2	1681	68	1
1592	59	6	1622	104	0	1652	75	0	1682	98	7
1593	36	7	1623	47	6	1653	91	10½	1683	76	11
1594	38	7½	1624	42	0	1654	142	7	1684	135	9
1595	51	5	1625	37	2	1655	156	6	1685	122	5½
1596	47	8	1626	40	0¾	1656	162	7½	1686	186	8
1597	43	0	1627	117	8½	1657	92	9	1687	199	11
1598	56	5	1628	160	2	1658	89	0	1688	96	7
1599	55	0	1629	69	0	1659	69	1	1689	54	7
1600	63	1	1630	73	7	1660	71	6¾	1690	44	5
1601	63	4	1631	94	8	1661	67	6	1691	41	3½
1602	153	11	1632	93	0	1662	70	8	1692	77	4
1603	74	0	1633	101	3	1663	70	6	1693	53	5½
1604	58	11	1634	100	0	1664	69	7	1694	121	4
1605	67	8	1635	106	6½	1665	182	9	1695	190	8½
1606	65	4¼	1636	95	5	1666	62	9	1696	193	0
1607	124	11	1637	80	8	1667	75	0	1697	231	9
1608	69	3	1638	60	7½	1668	65	6	1698	224	4
1609	67	7	1639	42	8½	1669	66	11	1699	126	3
1610	34	6	1640	47	3	1670	66	6⅓	1700	87	6¾
1611	61	8½	1641	105	0	1671	63	4½	1701	67	0
1612	40	8	1642	.....		1672	93	1	1702	84	1

Decennial Averages.

	s.	d.		s.	d.
1583—1592	44	8¾	1653—1662	101	5
1593—1602	60	10¾	1663—1672	89	7
1603—1612	66	5½	1673—1682	77	2½
1613—1622	77	1	1683—1692	102	7
1623—1632	77	5¾	1693—1702	137	11½
1633—1642	82	2	General Average . .	82	9½
1643—1652	76	0			

Houghton's Averages.

	s.	d.		s.	d.
1691	40	8	1699	112	5½
1692	101	7½	1700	87	5
1693	77	7	1701	44	0
1694	121	1	1702	106	9
1695	129	4			
1696	160	10	Whole 12 .	117	9
1697	208	8			
1698	214	7	Last 12 . . (p. 301.)	124	10¼

CHAPTER IX.

ON THE PRICES OF HAY AND STRAW.

DURING the whole period before me, one year only fails to supply a price of hay, while the record of the price of straw is unbroken. Hay is purchased extensively for the stables at Cambridge, Oxford, and Eton, and was no doubt cut in the extensive meadows near these localities.

Hay is generally sold as before by the load, by which as before is meant a fother of nineteen and a-half cwts., and is, as I conclude from the places generally furnishing the evidence, of exceptionally good quality. But there are other measures used, which are sometimes not a little puzzling. The cwt. and its subdivision, the tod, are the commonest of these exceptional measures, the price in these smaller measures being generally much higher than that by the larger. This indeed might be expected, and the more so because in these quantities it is likely that the best of the stack was being sold. The earliest entry of the sale of hay by the cwt. is in 1593 at Eton, but it is common at Cambridge. On this first occasion hay by the cwt. is cheaper than by the load.

But it is not easy to guess what was the stone at Worksop in 1598. In this year hay is not dear at Oxford, but no conceivable or known weight of a stone, elastic as this word is, could account for the price here. It must be some local measure, the meaning of which I have been unable to trace.

On some occasions we are told what relation certain less frequent quantities bear to the commoner unit. Thus in 1625,

the Cambridge account informs us that twenty cwt. went to the load. In 1687, we are told that thirty-six trusses went to the load. Sometimes we are told that the price includes the carriage, sometimes the cost of the carriage is quoted separately. In any case, the article, owing to its bulk, could not have been brought from any great distance. Hence the origin of the supply is very rarely stated, though I have noted one such case among the King's College purchases of 1639.

Old and new hay are occasionally distinguished, and usually the former is the highest priced. In one locality, Yotes Court, marsh is distinguished from ordinary hay, and appears to be rather cheaper.

The reason which I gave in my fourth volume, p. 295, for the comparatively frequent entries of hay, as compared with the scanty information given in earlier times, was increasingly dominant in the seventeenth century: I mean the inclosure of common lands and pastures. It was therefore the case that the owners or occupiers of these several estates made the hay crop a subject of considerable care, and when the needs of their own stock were satisfied or at least anticipated, they could bring the surplus to market. Besides, during the seventeenth century the beneficiaries of corporate property had to keep a keen look out after their property, to visit it regularly, and to enforce as far as possible the punctual payment of rents. The maintenance of a considerable stud was therefore a necessary charge on the establishment. It was the custom to turn the horses out in the early summer, and the charges for a horse-grass, at from 2*s.* to 3*s.* a week, are common in the accounts. I imagine that the head and bursars of the Colleges travelled slowly on their progresses.

Hay varies considerably in price from year to year, and within the same year. In illustration of the latter statement, in the year 1583 two Colleges in Oxford buy at 10*s.* and 20*s.* In 1590, the same purchaser gives 13*s.* 4*d.* at one time of the year, but 23*s.* 4*d.* in the winter. At King's College, in 1630, it is bought at 14*s.* to 30*s.* In 1648, Corpus Christi College,

Oxford, buys at 60*s.* 6*d.*, New College at 37*s.* 6*d.*; while in the next year the former gives 66*s.* 8*d.*, the latter in July 23*s.* At Yotes Court, in 1649, Master gives prices from 20*s.* to 75*s.* These illustrations might be multiplied.

The register of hay prices gives the same series of exceptionally high rates in the decade 1643–1652, the price of 1649 being the highest in the whole period, 54*s.* 5*d.*; and the same decade giving evidence of two other very dear years, 50*s.* 8*d.* in 1652 and 45*s.* 2*d.* in 1648. After the first two decades of years, the price of hay does not on an average undergo more than a slight change, though it is on the whole rising in price. I have not indeed departed from the rule, which I consider essential to the interpretation of these prices, of reckoning the agricultural year from September to September, but I am conscious that this is less applicable to the hay crop than to corn produce, since the hay crop was generally housed for some weeks before the corn harvest began. Much indeed of the confusion which has affected the reasonings of those who have hitherto dealt with such information on agricultural prices as they have been able to procure has arisen from the fact that they have taken the civil year instead of the agricultural year. It is plain, for example, that to comment on March and September prices is to mix up two harvests, which may have been of very different quality and quantity. By putting the hay prices into the same kind of year, I incur something of the same risk, for prices are affected to a greater extent than should be by the crop of the second year, though I believe that the use of new hay was as much avoided by the seventeenth-century as by the nineteenth-century agriculturist.

The prices of hay, though they are affected by the seasons, are not so significant as those of corn, for the reason that they do not represent such urgent demand as the supply of wheat does. At the same time, owing to the absence of winter roots, and the very imperfect cultivation of the artificial grasses, hay was of much more importance in the economy of the seventeenth-century agriculturist than it now is, for on its quality and

quantity depended the winter condition of cattle. Hence the demand for hay was intensified when the summer had been excessively dry, or the spring was backward, or when the hay-making time had been wet, or when the prolongation of winter frosts made the farmer unusually anxious about his cattle and sheep. And by implication, information on the price of hay at this time is instructive from its bearing on agriculture and cattle-feeding.

The years of dear wheat do not correspond except in a particular period to years of dear hay. In 1607, hay was 39*s.* 1½*d.*, but wheat was 37*s.* 6¼*d.* In 1611, hay is 32*s.* 10*d.*, wheat 37*s.* 1¾*d.* In 1615, hay is 39*s.* 3*d.*, wheat 34*s.* 2¾*d.* In 1634, hay is 45*s.* 5*d.*, wheat 41*s.* 7¾*d.* In 1637, hay is 45*s.* 1½*d.*, wheat 47*s.* 9½*d.* The correspondence however is closer in the dearths of the Civil War. In 1648, hay is 45*s.* 2*d.*, wheat 67*s.* 10½*d.* In 1649, 54*s.* 5*d.* and 65*s.* 6*d.* But in 1652, when hay is 50*s.* 8*d.*, wheat is 33*s.* 10¾*d.* Nor do we find an extraordinary price of hay during the seven bad seasons at the end of the seventeenth century. I conclude therefore that in the two years 1648 and 1649 there were very backward and cold springs and a bad hay-making season; in brief, a scanty and ill-made crop.

In vol. iv. p. 297, I noted that during the fifteenth and sixteenth centuries the price of a load of hay was generally close to the price of a quarter of barley. But during the period before me, it has considerably advanced on this relation. Now this is not to be explained by the fact that a different class of persons used it, for my notes on the seventeenth century are extracted from the same or similar records with those of the fifteenth and sixteenth centuries. But I conclude that as agriculture improved, and the quality of stock with it, there was an effectual and increasing demand for this produce, and a consequent tendency upwards. Roughly speaking, the relative price of hay increases twenty per cent. above that at which it stood in the earlier period.

I now proceed to discuss Houghton's entries and averages.

They are numerous: 24 for the first of his twelve years, 28 for the second, 30 for the third, 35 for the fourth, 32 for the fifth, 29 for the sixth, 34 for the seventh, 38 for the eighth, 40 for the ninth, 35 for the tenth, 37 for the eleventh, and 34 for the twelfth. In these entries London is always represented, the Thames valley and the Home district more copiously than other districts. Now here we should expect to find the highest prices. This is illustrated by the London prices, which are not indeed always the highest, but which are on an average far in excess of any of my centres. Besides, it will be remembered that Houghton's are the highest market prices, or as he says, topping. Now the average of the last ten years is 33*s.* 5*d.*, as compared with that derived from my authorities, 28*s.* 3¼*d.*, the general average in every year being in excess of that derived from the localities which have furnished me with original information. In 1699 began a series of hot and dry summers, favourable to the corn crops but injurious to the hay. Still in no district would hot and dry weather affect the hay harvest less than in the alluvial and low-lying districts of Cambridge, Oxford, and Eton. And indeed the averages would have been lower had it not been for the fact that in four years I have London entries among my own evidence. This is further illustrated by the fact that in his collections Houghton gives the Cambridge return for hay for eleven consecutive years, the average of these years being 23*s.* 3¼*d.*, or little more than half the amount of the London average. I am disposed therefore to conclude that during the whole period, had prices like Houghton's been forthcoming, the general price of hay in England would have been twelve to fourteen per cent. higher than is contained in the averages which I have been able to draw.

Four stacks of hay at £7 10*s.* each are sold at Blackwall in 1678. They must have been small, and should have contained, to judge from the average of the year, from seven to eight loads.

On three occasions, in 1610, 1621, and 1648, three of the

Colleges in Oxford and Cambridge, Wadham, King's College, and New College, purchased standing grass by the acre, the last entry including the cost of carrying the hay, but not apparently that of cutting and making. Wadham College was not yet built or settled, but the entry is taken from the building accounts of the College, and is no doubt a charge incurred by the founders for the purpose of feeding the horses employed in carting materials. The price is the rent of the first growth of grass land, 33*s.* 4*d.* an acre in the first entry, 18*s.* 6*d.* in the second, and 42*s.* 9*d.* in the third, for the price, £49, is an erratum for £44 12*s.* 4*d.*

STRAW. The entries of this article are unbroken, every year being represented. The price of straw more naturally follows the price of grain than it does that of hay. The dearest year for straw is 1665, and the price here is intensified by the extraordinary rate at which it was bought at Winchester, the average in this locality being 22*s.* 3*d.* The College was in a state of panic this year owing to the plague, and though the School does not appear to have been dispersed, the election was held at Newbury. Now we know from other entries that straw was purchased by this corporation 'for the boys' beds,' and it is possible that the College went to extraordinary expense and took great care so as not to procure this material from an infected district, for the neighbourhood of Winchester was severely visited by the plague. If we take this explanation to account for the unexampled price at which it was bought, the dearest rate in the whole period is that paid in 1649, 14*s.* 9*d.* Here the purchase is made in Cambridge, where the price of straw is generally low, and of course the cost is connected with the prolonged scarcity of the period, the most enduring and serious agricultural calamity of the seventeenth century.

Straw is also dear in 1628, 1629, 1637, 1648, 1684, 1685, in which years, with the exception of 1648, corn was by no means dear. One is led then to conclude that the cause of the price is the shortness of the straw owing to dry weather

during the growth of the haulm. In two of these years, 1637 and 1648, hay is also excessively dear, but in the others it is not so greatly enhanced in price. Straw is dearest in the decade 1683–1692, and next in 1633–1642, but the variations in price during the last eighty years of the period are not considerable, being only a few pence the load, the greatest difference in the several decades being only 1*s.* 2¼*d.*

On some few occasions we find the origin of the straw designated as wheat, barley, rye and pease. In 1591, wheat is dearer than rye straw. In 1620, the same price is paid for each. In 1616, rye is a little cheaper than other straw, the origin of which is not stated. In 1695, barley straw is rather dear, and was probably purchased for feeding purposes. In 1697, oat, wheat and rye straw are purchased in London at the high prices of 21*s.*, 27*s.* and 16*s.* respectively. In 1676, 1677, 1678 and 1680, King's College, Cambridge, purchases pease straw at rather high prices, and probably for forage. In 1678 it is nearly double the price of wheat straw.

Straw was generally used for stable litter, the entries being generally derived from what the accounts call *custus stabuli*. In 1620 some is bought to thatch a barn, and, as I have said already, in two consecutive years, 1645, 1646, it is purchased at a higher price than ordinary, 'for the boys' beds.'

The subjoined table is of the price of hay and straw, with the usual decennial averages. I have also deduced the averages from Houghton, and have given his prices at London.

Averages of Hay and Straw (Loads).

	Hay.	Straw.		Hay.	Straw.
	s. d.	*s. d.*		*s. d.*	*s. d.*
1583	14 10	5 0	1617	26 3	8 6
1584	10 9	5 3	1618	19 9	9 6¼
1585	10 6	5 3	1619	28 8	9 3
1586	16 7¼	4 10½	1620	34 1	9 5
1587	10 0	4 1½	1621	26 8	9 7¾
1588	17 9	4 4½	1622	21 6	9 2¼
1589	18 4	4 8	1623	20 10½	8 0
1590	16 8	5 4¼	1624	20 1½	8 6
1591	10 4¾	5 5	1625	20 0½	7 9
1592	15 8	5 7	1626	19 8	7 10
1593	21 8	6 3	1627	23 2½	10 1½
1594	18 5½	8 9	1628	.....	12 9
1595	20 0	6 10½	1629	37 6	12 9
1596	21 0½	7 1	1630	26 2	11 2
1597	17 6½	7 2½	1631	17 6¼	9 0¼
1598	12 1½	5 2½	1632	23 6	9 2¼
1599	21 4½	6 2½	1633	24 3	10 0
1600	29 10	8 9½	1634	45 5	9 11
1601	20 7½	4 9	1635	34 4½	11 11
1602	21 1	5 3	1636	32 9	11 3½
1603	18 0	7 6½	1637	45 1½	12 10½
1604	24 0	7 5½	1638	26 0	8 9
1605	30 0	8 10	1639	27 9	7 8
1606	20 0	7 6	1640	18 0	10 4½
1607	39 1½	6 11	1641	24 11¼	8 10
1608	25 0	8 2½	1642	35 0	9 4½
1609	20 0	8 10	1643	22 6	14 6
1610	20 0	8 0½	1644	21 0	9 3
1611	32 10	13 10½	1645	23 9	7 4¼
1612	20 3	11 6	1646	20 1½	11 7
1613	23 3	7 6	1647	27 5¾	9 9
1614	22 6	9 1	1648	45 2	11 8
1615	39 3	8 2½	1649	54 5	14 9
1616	22 3	8 9	1650	26 4	9 3

	Hay.	Straw.		Hay.	Straw.
	s. *d.*	*s.* *d.*		*s.* *d.*	*s.* *d.*
1651	46 1	9 1	1677	23 9	8 10
1652	50 8	9 9	1678	28 4	9 2
1653	35 9½	8 6	1679	24 3¼	9 0
1654	27 10	9 3	1680	35 9½	9 0
1655	29 11	9 6	1681	25 10½	9 3
1656	28 8	10 2	1682	27 6	8 6
1657	29 2	9 5	1683	25 6	9 10½
1658	30 0	7 9	1684	27 9½	13 1
1659	37 7	9 0	1685	24 10½	12 1½
1660	31 1	10 4	1686	26 5	9 4
1661	25 8	9 0	1687	39 6	12 6
1662	30 3½	10 8	1688	21 11¾	10 2
1663	29 3	10 1½	1689	23 1	9 0
1664	30 4	9 3	1690	26 8	8 0
1665	29 9¾	15 7½	1691	27 6½	9 4
1666	32 5	10 0	1692	29 8½	10 0
1667	21 4	7 0	1693	26 3½	9 0
1668	21 4½	9 2	1694	27 10	11 6
1669	25 0	8 0	1695	28 3	9 6
1670	22 6	8 7½	1696	27 9	8 7
1671	35 0	8 6	1697	32 6	11 7
1672	28 11	9 3	1698	30 8	9 10
1673	37 6	9 0	1699	24 0½	9 9
1674	23 0	9 8	1700	38 4	9 4
1675	27 8	7 0	1701	33 6	9 0
1676	36 4	10 5	1702	33 6½	10 0

Decennial Averages.

	Hay.	Straw.		Hay.	Straw.
	s. *d.*	*s.* *d.*		*s.* *d.*	*s.* *d.*
1583—1592	14 2	5 0	1653—1662	30 $7\frac{1}{4}$	9 $3\frac{1}{2}$
1593—1602	20 $4\frac{1}{2}$	6 $7\frac{1}{2}$	1663—1672	27 7	9 $6\frac{3}{4}$
1603—1612	24 11	8 $10\frac{1}{2}$	1673—1682	29 0	8 $11\frac{3}{4}$
1613—1622	26 5	8 $10\frac{3}{4}$	1683—1692	27 $3\frac{3}{4}$	10 4
1623—1632	23 2	9 $8\frac{1}{2}$	1693—1702	28 $3\frac{1}{4}$	9 $9\frac{3}{4}$
1633—1642	31 $4\frac{1}{4}$	10 $1\frac{1}{4}$	Gen. Average.	26 $4\frac{1}{2}$	8 $10\frac{3}{4}$
1643—1652	33 9	9 $8\frac{1}{4}$			

Houghton's Averages.

	Hay.			Hay.	
		London Prices.			London Prices.
	s. *d.*	*s.* *d.*		*s.* *d.*	*s.* *d.*
1691	28 7	43 10	1699	35 11	48 8
1692	29 0	33 3	1700	34 5	48 10
1693	26 6	39 6	1701	34 10	52 0
1694	31 0	47 0	1702	37 6	50 3
1695	33 6	45 10			
1696	32 2	45 4	Last 10 . .	33 5	
1697	33 7	50 0			
1698	34 9	46 3	Whole 12 .	32 $7\frac{3}{4}$	45 $10\frac{3}{4}$

CHAPTER X.

MINOR AGRICULTURAL PRODUCTS.

I HAD not intended at first to treat these particulars separately. But I found that by grouping them I might more conveniently call attention to certain facts in the progress of English agriculture and gardening, than by including them in the inevitable list of sundry articles. But some few are included in the corn prices, and it will be found that some are still left with the sundries to be commented on hereafter. As I deal with the successive periods, articles which formed the subjects of special tables, and required particular comment, because they were so common in the accounts, disappear altogether, or so rarely occur that they are most conveniently treated among the mass of sundry purchases. The first entry with which I deal is one which is printed among the corn prices.

GRUDGINS. At the present time, this name is understood in the Eastern counties to be a kind of rather fine pollard, containing more flour than bran does, but still a fully-ground bran. It may be quite correct to define it thus at the present day, and quite incorrect to understand it in such a sense when used three centuries ago.

My entries of grudgins are all from King's College, Cambridge. They are found over a space of sixty-one years, from 1583 to 1643 inclusive, when they suddenly and permanently disappear. They are plainly (1) a produce of the bakehouse or mill, and bear but a small proportion to the annual consumption of the College; (2) what is entered in the account is

a receipt, and on the debit side of the bursar's account, though some of the product is not sold; (3) for the first thirteen years they are always dearer than wheat, for a few more years they are sometimes dearer and sometimes cheaper, and after 1599 they are always cheaper. It is impossible to doubt, in my opinion, that this product progressively represents an inferior article, and that as prices rise, the flour which the College consumed was more finely bolted.

During these sixty-one years, only three are without an entry of grudgins. The first gap is in 1601, when the decline in the price of the product is just visible. The second is in 1619, the only year in which the King's College accounts are wanting. The third is in 1640. For the five years 1591–1595, when to be sure the price of wheat at King's College was stationary though high, the selling price of grudgins is unchanged, a fact which seems to suggest that the produce was disposed of by contract. The lowest proportion between wheat and grudgins is in the decade 1623–32. During the last eleven years, when wheat is rather cheaper, the price of grudgins rises. In the earlier years, when wheat was abnormally dear, as in 1596 and 1597, the price of grudgins is lower than that of wheat, a fact which seems to indicate that when wheat and flour were very dear this product deteriorated, or in other words, that flour was more searchingly bolted. After the old relation had been altered, there is only one year in which grudgins are dearer than wheat. This is 1638. In one year, 1610, there is a Cambridge entry of simila, at about the same price as grudgins, a common word in the earlier Cambridge accounts.

There is also an entry of blend corn in 1599 at 30*s.* 4*d.*, of 'corn' in 1646 at 21*s.* 4*d.*, and of misulane in 1647 at 34*s.* 8*d.* The mixed crop of bullimung occurs four times on one estate in Cambridgeshire. The average at these four centres, all in the first decade, is 6*s.* 10¾*d.*

There are eight entries of bigg between 1588 and 1603, all from the Worksop accounts. The price varies exceedingly,

from 4*s.* 5¾*d.* a quarter to 28*s.* But the account includes some of the dear years. Four times it is said to be seed. It is likely that this produce was grown upon some light soil, fit for hardly anything else, and was used to fatten hogs with, or to brew a common kind of beer. In 1597 occurs the entry of 'broad barley,' likewise at Worksop. It is also cheap, and may be a synonyme for bigg.

MINOR LEGUMINOUS PLANTS. Beyond the ordinary beans and peas, mostly used in the stable, and the latter also for feeding pigeons, several other entries are made, some of which are plainly, from their relatively excessive price, a superior article for human consumption. They are vetches, tares, 'stede' peas, hasting peas, white peas, garden peas, house peas, green peas, porridge or pottage peas, boiling peas, table peas, Sandwich peas, Sandwich beans, Windsor beans, kidney beans, and French beans. Besides these, there is an entry of pulse.

Vetches were a very general crop in early English agriculture, though not much breadth was sown. But they appear to have been more rarely cultivated in later times, for I cannot but think that they would have been found both green and dry, in the haulm as well as threshed, in the stable accounts, had their use been common. One entry in 1605, of a purchase by Magdalen College, Oxford, of a *bigata leguminum*, is probably one of green or dry vetches in the pods. Nor am I quite certain that vetches and tares are the same product. They are very commonly synonymes. Vetches only occur four times, two being very early, two very late in the period. Tares occur seven times between 1611 and 1702. The average of the first two entries of vetches, both in cheap years, is 11*s.* 8*d.*; of the last two, 22*s.* 10½*d.* The average of the tares is 20*s.* 10¾*d.* Vetches are once bought at Oxford; tares once at Cambridge. Both are purchased at Harting in Sussex. Pulse is bought at Oxford in 1627, a cheap year, at 16*s.*, beans at the same place being at 18*s.* 8*d.* An acre and a-half of tares is bought by Eton in 1651, at 40*s.* the acre.

Hasting peas are found in the early years, in 1599 at 16*s.*

the quarter, in 1600 at 21*s.* 4*d.*, in 1601 at 18*s.* 4*d.*, and in all three cases at Wormleighton. In 1602 some peas are found in the same place at 10*d.* the gallon, or 53*s.* 4*d.* the quarter. Now as ordinary field peas range in this estate from 12*s.* 8*d.* in October to 21*s.* 4*d.* in July, and this purchase is made in May and in a cheap year, it stands to reason that this particular entry is of something very different from the ordinary produce. So is also the peck of peas bought in London on June 8, 1593–4. The year was a very cheap one, and 26*s.* 8*d.* may well be the price of garden peas. Occasionally, as in Kirtling in 1588 and at Mendham in 1626 and 1639, peascods are bought by the bushel. These were also garden produce. Green peas in 1597 are as 23*s.* 4*d.* the quarter, in 1639 at 29*s.* 4*d.*

The better and more expensive kinds of peas used for human food are known as white peas, pottage or porridge peas, or boiling peas, or Sandwich peas, or are simply indicated by their price. Thus in 1601 I find white peas, in 1608 pottage peas, in 1633 porridge peas. In 1601 white peas are 32*s.*, in 1602 24*s.*, in 1643 34*s.* 8*d.*, in 1647 30*s.* 8*d.* In 1632 house peas are 32*s.*, pottage peas 34*s.* 8*d.*; and in 1697 boiling peas are 48*s.*, double the price of the ordinary produce. In 1653 Sandwich peas are at 80*s.* the quarter, ordinary peas at the same place being at 24*s.* But there are other entries, mainly from Winchester, which are put down simply as peas. But they occur in the manciple's book, and are part of the diet of the Fellows in the days when these personages still lived at a common table.

The first of these entries is in 1640, when the price is 37*s.* 4*d.*; the next in 1641 is 48*s.*, in 1642 is 57*s.* 4*d.*, in 1643 is 49*s.*, in 1645 is 38*s.* 11½*d.*, in 1651 (an Eton purchase) is 57*s.* 4*d.*, in 1664 is 50*s.* 8*d.*, in 1685 is 46*s.*, in 1687 is 48*s.* at Harting and 35*s.* 5*d.* at Winchester. So the peas of 1698 are also garden varieties.

Two kinds of garden beans are named; large Sandwich beans in 1653 at 64*s.* the quarter, and Windsor beans in 1698 at the

same price. French or kidney beans are also found at the later part of the period among garden seeds in London purchases. But without giving any locality, garden beans are found at 32*s.* in 1631, at 96*s.* in 1645, and at 30*s.* in 1693.

In 1691 a quarter of buckwheat is purchased at Farnham for 12*s.*

MUSTARD-SEED, ETC. Including Houghton's entries of London prices for four years, mustard-seed is priced for sixty-three years out of the whole period. But the evidence is very unequally distributed. For the first twenty years there is no gap. In the next decade three years are missing, in the fourth decade four, in the fifth two, in the sixth two. Most of these prices come from King's College, Cambridge. From this date 1642 there is no entry till 1680. In this decade, the tenth, there are two entries. In the eleventh three are wanting, the entries being now mainly from Oxford. In the twelfth there are four absent.

There is no article the rise in the price of which is so marked as that of mustard is. In 1583 and 1585 it is 22*s.* the quarter, in 1587 it is 16*s.*, the lowest price recorded during the period, and indeed for long before, since from 1540 to 1582 the average was 23*s.* 4*d.* Upon this average however a considerable rise is effected in the first decade. A slight further rise appears in the second decade, the dearest years of this being 1596 and 1598, the cheapest 1602. During the next forty years the rise is considerable, in contrast with the first twenty, some thirty-five per cent. Then comes the interval of three decades, when from a general average of 48*s.* 10½*d.* for the first sixty years we find one of 94*s.* 8*d.* in the last thirty.

The Cambridge Fellows ground their own mustard, and the King's College accounts supply me with entries of mustard querns, purchased for the kitchen use. But the Fellows of Magdalen College, Oxford, purchased mustard meal. Of this article between 1588 and 1641, when the record ceases, because the kitchen sauces are lumped, there are forty-nine entries. In the first two of these the price of the meal is

53*s.* 4*d.* From 1595 to 1609 inclusive it is 64*s.* a quarter. From 1610 to 1624 it is 76*s.*, with the exception of one year (1611), when it is 96*s.* 2*d.* From 1625 to 1641 it is 152*s.*, the price being doubled in the year 1625. I cannot account for this sudden and permanent rise; I merely record the fact. It is possible that the manufacturer had some reason for doubling his charge, and the Fellows were willing to acquiesce in his reason.

The highest prices of mustard-seed are in 1611, 106*s.* 8*d.*; in 1684, 114*s.* 8*d.*; in 1692, 117*s.* 4*d.*; and in 1696, 128*s.*

ONION-SEED. The onion was the earliest vegetable cultivated in England. I have found its seed (vol. ii. p. 174) purchased in England in 1294. Common, nay universal as this potherb was, I have only come across some fifteen entries of it in the accounts which I have examined, and I imagine that most persons saved seed from the second year's growth of some among their plants. The seed is always bought by the lb., and varies from 1*s.* 7*d.* to 8*s.* for the ordinary kind. Towards the latter end of the period, a large price (from 10*s.* to 12*s.*) is paid for a kind designated 'best large.' There is one entry of leek-seed in 1654. The average price of the whole fifteen entries is 4*s.* 11*d.* Onions are also sold by the rope and by the bushel, though I have not found many entries of such purchases or sales.

HEMP AND LINSEED. There are a few entries of these articles. I have found twenty of the former, eight or nine of the latter, for I am not quite sure that the lintle seed of 1646 is linseed. The first seven entries of hempseed are from the Shuttleworth accounts and in the local measure called the met, six of which go to the quarter. The last five entries are from Houghton. There is a great elevation in price towards the end of the period, for Houghton's entries include the worst years of the scarcity. The average price is 37*s.* 5¾*d.* The average of the eight entries of linseed is 29*s.* 4¾*d.*

HEMP, FLAX, TOW, YARN. The hemp and linseed was generally, the former almost always, bought in order to procure a

home supply of materials for homespun, a bye industry practised almost universally up to two or three generations ago. But besides the product of their own cultivation, householders often bought raw hemp and flax, tow and yarn for homespun. Hemp is bought by the stone, the pound, and the cwt.; and considerable purchases by the latter weight are made for navy stores at Chatham and Deptford. The stone I am persuaded is the clove of seven lbs. Six entries by the stone give an average of 2*s.* 5½*d.*, five by the pound one of 5½*d.*; seven by the hundred-weight, this entry being always of Russian hemp, are at an average of 20*s.* 5¾*d.*

Flax is once bought by the hundred-weight, six times by the stone, and on every other occasion by the pound. The single entry by the cwt. in 1587 is at 30*s.* 8*d.* The average by the stone is 6*s.* 2*d.* The average of nineteen entries by the pound is 9¼*d.* Tow, which is only found in the earlier part of the time, and was used to make coarse fabrics, is 4¼*d.* a lb. on an average of ten entries. Two entries of flax-yarn give an average of 1*s.* 9*d.* a lb.; three of tow-yarn, one of 8¾*d.*; two of woollen-yarn, an average of 2*s.* 4*d.* a pound.

HONEY. I have registered twenty entries of the price of this article by the gallon, two by the pot (which is plainly a quart), one by the pound, and four by the hundred-weight. Bees I believe were very generally kept by cottagers and others (there are several entries of beehives in my collection of sundry articles), and indeed considering how dear other sugar was, nothing could have kept the price of this sugar so low but the very general custom of bee-keeping. The highest price by the gallon is that of a London purchase in 1689, where the charge is 13*s.* 4*d.*; the lowest one in 1592, at Worksop, for 3*s.* 4*d.* But almost all the other entries are very close to the average, 5*s.* 4½*d.* The entry by the pound in 1681 is at 5*d.* During the four years 1692–5 Houghton gives a London price by the cwt., 54*s.* 7½*d.*, which, considering that it was in the scarcity septennate, fairly corresponds to the price by the pound.

VERJUICE. The expressed juice of crabs, clarified and carefully kept, was a favourite ingredient in the cookery of our ancestors, and has perhaps been abandoned unwisely in our days. It was manufactured in most households, and if the servants did not gather enough, crabs were occasionally bought. So was also verjuice. A continuous return of this article by the gallon is supplied from the account books of Magdalen College, Oxford, from 1593 to 1626, after which it is no longer discriminated. At first it is always 8*d.* a gallon, then nearly as regularly 10*d.*, only two years, 1611 and 1625, paying 1*s.* In 1626 it is 9*d.* There are five entries of crabs by the quarter, all in the early years, at prices varying from 1*s.* 4*d.* to 4*s.* In short, the cost was the labour of collection, and crabs were probably gathered by children and women from the hedge-rows and woods, for the crab was a favourite tree for the hedge, being reckoned next to the whitethorn.

QUICKSETS. These are extensively bought for planting hedges, and were probably obtained from the woods. There is a very low rate at Worksop in 1583, 1*s.* the thousand. But during the first twenty years quickset seedlings are 2*s.* 6*d.* the thousand, or 3*d.* the hundred; and at this rate they are bought at Eton, Oxford, and Cambridge. They rise however from this price to 4*d.*, 5*d.* and 6*d.* the hundred, and even 7*d.*, or 5*s.* and 5*s.* 10*d.* the thousand. On one occasion, S. John's College, Cambridge, buys exceptionally large quicksets at 20*s.* 9*d.* the hundred. It is however singular that at Harting in Sussex, the seat of the Caryls, quicksets are purchased as late as 1696 and 1697 at 2*d.* and 3*d.* the hundred.

GARDEN-FRUITS. It was the reproach of the English that having made little or no progress in the art of gardening or fruit culture, they were obliged to import their best fruit and vegetables from Holland, and it was to remove this reproach that Simon Hartlib wrote his Legacy. The facts contained in my entries confirm this statement, and show how gradually

the fruits and vegetables of Holland made their way into this country.

The fruits which I find purchased are apples, pears, quinces, cherries, strawberries, raspberries, damsons, walnuts, filberts, and hazel-nuts. To these I may add skeggs, a Warwickshire name for the bullace or wild plum. Now some of these fruits are so costly, that it is difficult to conceive that they were of home growth. For example, quinces are bought in 1600 at the rate of 11*s.* 8*d.* the hundred, in 1604 at 12*s.* the hundred, and in 1653 at 8*s.* the hundred. The last entry, at a time when general prices had greatly risen, but at the same time when a great impulse was being given to horticulture, may be due to a home cultivation of this fruit-tree.

Of pears, the choicest and the dearest, due to its quality and its power of keeping long, was that known as the warden. A bushel of ordinary pears could be bought for a shilling, but my first entry of wardens in 1595 is at 1½*d.* each, or 1*s.* 6*d.* for a dozen. In 1601 they are bought for a third this price, 10*d.* a score, but in 1692 they cost 2*d.* a piece, thirty being bought for 5*s.*; and even more, for a hundred cost 20*s.* in the same year. In 1622 they are 8*s.* and 10*s.* the hundred. In 1607, poplin pears, a name I do not remember to have seen, are at 1*s.* the hundred; and in 1649, bergamot pears are at 2*s.* 6*d.* for the same quantity.

Apples are generally bought by the quarter, and the price varies exceedingly, according to the plenty or scarcity of the season, and very likely more according to the quality of the fruit. They are sometimes however bought by the hundred, and then I conceive that the entry is of choice fruit. In 1594 apples are at 1*s.* 4*d.* the hundred, in 1606 at 2*s.*, in 1607 at 2*s.* 2*d.*, in 1621 at 2*s.* 4*d.*, and we are told that the last were pippins. Now in 1653, ordinary apples were at 16*s.* the quarter, pippins at 32*s.*; and in 1659, the highest recorded price of apples, 64*s.* the quarter, is also of this lasting fruit. The cheapest were the early kinds, as in 1696, when apples so described are only 8*s.* the quarter. The lowest price in my

accounts is the earliest, in 1593, when this fruit is only 2*s.* 8*d.* the quarter. The next in cheapness is that to which I have already referred, the early apples of 1696. Of the other entries, twenty-two in number, two are between 10*s.* and 20*s.*, one is above 40*s.*, and the rest are between 21*s.* 4*d.* and 36*s.* The commonest price is 32*s.* Among apples I find codlins, by a strange measure, the quartern, by which is probably meant the quarter of a bushel.

The highest priced fruit is that of some kinds of cherries, especially those which are called 'preserving cherries.' The early fruit is also dear. But preserving cherries are at 6*d.* and 6½*d.* the lb. even as early as 1602 and 1603, when the ordinary fruit is at 2*d.* and 2½*d.* At Mendham in 1639 cherries cost in July nearly 8½*d.* a pound, the highest which I have seen, with the exception of an entry of Duke cherries in 1686 at 1*s.* a pound. It is difficult to imagine that these can have been of home growth. Black cherries are bought in 1687 at 3½*d.* a pound. A few more entries are among the 'Sundries'.

Strawberries are seldom found. They are at a little over 5*d.* a pint on June 6th, 1593, and at 5*d.* a pint on June 8th. In the next year they are at 4*d.* a pint on June 10th. These are London prices, paid by a merchant living in Bassishaw ward of the city.

Raspberries and gooseberries are native plants, which grew no doubt more plentifully in the woods during the seventeenth century than they do in the nineteenth; and it is highly probable that the entries in 1593 and 1594, of 8*d.* a quart for the former and 3*d.* for the latter, paid by the London merchant referred to above, were collected by the country folk.

Damsons, the only plums besides skeggs which are given in the accounts, are quoted at 85*s.* 4*d.* the quarter in 1602, and at 88*s.* in 1685, the former rate being paid in Oxford, the latter in Winchester. Skeggs are collected and sold at 4*s.* the quarter.

There are a few prices of walnuts, by the hundred and by the bushel. Two of the former measure give an average of 8*d.*,

those of the latter one of 4*s.* 4*d.* The only entry of hazel-nuts is at Gawthorp, where Shuttleworth pays 6*d.* for an eightendole. This measure, according to Houghton, is peculiar to East Lancashire, and means seven quarts. The nuts must have been collected from the hedges by the boys.

GARDEN-SEEDS. Before I deal with the residual prices, contained in the entries of minor products and some of the sundries, it seems best to designate the dates at which garden seeds were purchased and gardening began. It will be remembered that up to 1582 the only hints of horticulture are entries of onion-seed, and a doubtful one of cabbage seed. There are grounds for believing that later than the date of 1582 even cabbages were imported. I do not pretend to say that my notes are conclusive on the subject, and that before their occurrence there was no such thing as horticulture. I am aware that Tusser mentions many potherbs as cultivated in his time. But on the other hand, Hartlib expressly states that English gardening was very backward and that the better kinds of fruits and vegetables were imported from Holland, though the English soil and the English climate were quite adequate to supply what came at present from a foreign country. I may add too that my information comes from the accounts of corporations and individuals who possessed abundance of land on their premises, which was readily available for gardening, and that the diet of such persons as belonged to these corporations was very capable of improvement.

In 1593 a London merchant purchases (for in those days there were many gardens within the walls of the city) seeds of certain potherbs—hyssop, thyme, marjoram, and winter savory. In 1608, I find the first purchase of fennel seed at Theydon Gernon. In 1618, Shuttleworth buys two hundred sets of liquorice roots. In 1644, New College, Oxford, buys cabbage plants at a shilling the hundred, carrot seed at 4*d.* the oz., and turnip seed at 2*d.*, and the next year turnip seed at the same price, all with onions to be sown or planted in the College garden. In 1653 and 1654, the owner of Mounthall, a country

house in Essex not far from Saffron Walden, bought, I find, the following garden seeds—carrot, radish, cabbage, lettuce, parsnip, spinach, colewort, curled radish, succory, cucumber, skirret, Rounsefalls, clove gillyflowers, gillyflowers, clover seed, saintfoin and asparagus plants, for the first year; and in the next, in addition to these, striped lettuce, smooth spinach, parsley, scurvy grass, leek, purslane, choice gillyflower, musk milion seeds, artichoke plants, cabbage plants, sandwich peas, winter and summer savory, sweet marjoram, short cucumber and turnip seed. In 1655, the same country gentleman gives me the first notice of cauliflower seed. In 1667 Winchester College buys and plants asparagus sets, in 1671 cauliflower plants, and in 1672 cabbage plants. Had this horticulture been practised before, some evidence of it would hardly have been absent from the accounts. In 1672, tulips are purchased for the garden at Horstead Keynes. In 1697 I find the seeds of clover and rye grass purchased in London in considerable quantities, and in 1698 the following seeds of garden herbs—garden cress, lettuce, cauliflower, radish, cornsallet, chervil, Hotspur peas and Windsor beans, salsfrey, spinach, cabbage, carrot, asparagus, French beans, early Dutch cabbage, large onion, parsley, short cucumber, parsnip, sweet marjoram, musk melon, marigold, carduus, sorrel, small and large nasturtian, borage, Roman lettuce, endive, cabbage lettuce, candytuft and roccambole. In the next year, the purchaser adds to his garden seeds, London radish, Lombard lettuce, Dutch brown lettuce, purslane, London leek, best cucumber, white kidney beans, and plain endive. At Foxcomb in Hants the farmer buys clover and trefoil seed, and in 1702 crap grass and trefoil. In 1702, King's College sows spinach in its garden; and in 1702, besides a considerable purchase of fruit trees, we find dwarf peas, egg peas, and Dutch admiral peas. It cannot be doubted that the origin of these pot and salad herbs and other vegetables was Holland. Carrots occur at Theydon Gernon for the first time in my accounts in 1605, and again at Winchester in 1644; and by an entry at New College, Oxford, in 1691, it is plain that the roots

were planted for the purpose of procuring seed in the second year.

FRUIT AND ORNAMENTAL TREES. In 1584, King's College buys six young ash plants to set in its back. In 1589, Eton puts thirty-one trees in the playground and orchard, and in 1590 begins its unlucky hop-garden with 3000 sets; and in 1596 New College begins to plant privet hedges, buying them by the burden. In 1601, Magdalen College buys six plum trees. In 1602, New College buys a walnut tree. In 1605 we find elm plants bought at Eton, and more the next year. In 1612, St. John's plants willows by the water-walk. In 1613, New College plants six sycamores in its garden, seven woodbines, four bay trees, and four sweetbriars. In 1616 it plants three cherry trees; and in 1617, Oriel College, Oxford, buys two apple trees. But, as before, it is during the time of the Commonwealth that the great start is made. The Mounthall estate buys seven pecks of strawberry plants. But at Horstead Keynes and Yotes Court considerable purchases of fruit trees are made. The owner of the former estate, in Sussex, near East Grinstead, buys an apricot and an orange tree, two royal Windsor pear trees, two Kent pippin trees, two Flanders cherry trees, eight apple trees, and twenty-six Provence rose-bushes; and Master of Yotes Court stocks an orchard with year-old plants, 400 stock trees, 100 cherry trees, 100 pear trees, 100 apple trees, and 100 plum shoots. The price he gives for these 800 yearlings, 10*s.*, shows that they must have come from a neighbouring nursery. In 1662, Eton buys two dozen Dutch gooseberry roots at the large price of 18*s.* 8*d.* a dozen, and 400 raspberry plants, obtained no doubt from the woods and hedges, at the low price of 4*d.* a hundred; and next year plants a dozen apple trees. In 1667, St. John's College, Cambridge, buys twenty young sycamores; and in 1670 King's College buys fifty-five ash and elm trees, and Winchester six laurel trees. In 1686, New College buys seven peach trees, six pear trees, four apricot trees, and eight plum trees; and no doubt set them under the south wall of their

garden. In 1688, Winchester College plants twelve horse-chesnuts, and twelve Dutch elms. In 1690, Eton buys eight plum trees, and Winchester sixty lime trees, twenty-four fir trees, and four cypresses; and in the next year fifteen more cypresses. In 1692, New College buys seven lime trees, which are very likely still standing; and in 1693 and 1694 fir trees. In 1698, Caryll plants 120 redstreaks, a kind of apple I believe; and in 1700 fifty chesnut trees. In 1702, King's College, Cambridge, plants 115 Philarees, by which I presume is meant lime trees; while the following fruit and ornamental trees are purchased in London—nine peach, six nectarine, four apricot, five pear, two plum, six standard duke cherry, six standard May cherry, two wall duke cherry, forty-six honey-suckles, three lauristinuses, and one round-headed lauristinus. I do not indeed assert that these are the first occasions on which such fruit and ornamental trees are planted in the several localities in which they occur, but when one considers how particular and how minute the accounts are of the time in everything except carpenters' and masons' bills, the previous silence of the accounts is I submit very significant.

There yet remain a few products on which a brief comment should be made. On five occasions cabbages are purchased; in 1585 at 4*d.* a piece, in 1594 at 2*d.*, in 1597 at 1*d.* (one of these is in London, the other two at Worksop), in 1621 for 5*d.* at Wormleighton, and in 1641 for 2*d.* at Winchester. It is difficult to account for these prices. Again, there are fourteen entries of artichokes by the head and two by the bushel; the first and second in London at 2*d.* and 1½*d.* In 1603 they cost 3*d.* at Theydon Gernon; in 1604, 1½*d.* at the same place, where they are again 3*d.* in 1607. In 1608 they are 1¼*d.* in London, in 1621 they are at 4*d.* at Wormleighton, where they are also twice bought by the bushel in the same year at 3*s.* 4*d.* and 3*s.* They cost at Winchester, where they are a favourite vegetable, 4*d.* in 1640, 6*d.* in 1641, 2¼*d.* in 1642, 3½*d.* in 1643 (when 160 are bought), 3*d.* in 1644. They are found in the manciple's book again in 1684, 1685 and 1686, when they are at 3¼*d.*, and

$3\frac{3}{4}d.$ I cannot conceive, if these articles had been commonly planted in England, that the Fellows would have failed to supply themselves out of their own garden.

Liquorice is found five times at prices varying from 1*s.* to 1*s.* 6*d.* the pound. There are two entries of potatoes. One, in 1590, is for the Queen's table, the second, 1632, is at Harting. On the first occasion five lbs. are bought, two at 2*s.* 6*d.*, one at 1*s.*, and two at 1*s.* 4*d.* These were undoubtedly of foreign origin. On the second occasion three lbs. are bought at 4*d.* a lb., and these also were probably Dutch. There are five entries of cucumbers by the piece at prices varying from 5*d.* to 1*d.*, and one by the dozen at 3*s.* 4*d.* There is one entry of home-grown saffron, at 2*s.* 6*d.* the ounce; two of acorns, at an average of $10\frac{1}{2}d.$ the quarter; one of barberries, at 4*d.* the quart; three of samphire, at 8*d.*, 6*d.*, and 1*s.* the pound. Here I may perhaps add fern ashes at 4*s.* the quarter and malt dust at 8*s.*, both probably garden manures.

On two occasions I find cider sold by the bottle, and at 4*d.*; on four by the hogshead, in 1679 at 40*s.*, in 1691 at 70*s.*, in 1693 at 50*s.*, and in 1700 at 100*s.* Mead is sold in 1682 at 1*s.* the bottle, and in 1702 at 2*s.* 4*d.* the gallon.

Annexed is a table of the average price of wheat and grudgins at King's College, London, with decennial averages, and also decennial averages of mustard seed and mustard meal.

Wheat and Grudgins.

(King's College Cambridge.)

	Wheat.	Grudgins.		Wheat.	Grudgins.
	s. d.	*s. d.*		*s. d.*	*s. d.*
1583	16 0	22 10½	1614	33 3¼	29 4
1584	14 9¼	21 4	1615	34 8	32 0
1585	24 1¾	25 7	1616	42 0	32 0
1586	30 5	30 2¾	1617	39 8¾	30 1¾
1587	12 7½	19 10¾	1618	29 6	22 8
1588	13 1	18 1¾	1619	.....	.....
1589	17 4	25 2½	1620	20 2¾	16 8
1590	20 0	24 0	1621	43 10¾	32 4
1591	16 0	18 6	1622	43 5	37 0
1592	12 3¾	21 4	1623	38 5¾	29 4
1593	18 1¼	25 0¾	1624	41 0¾	32 0
1594	32 0	35 2½	1625	45 7	36 0
1595	35 11	39 0	1626	29 3¼	20 0
1596	43 10	42 8	1627	22 3¼	16 0
1597	44 8	40 0	1628	31 7½	21 4
1598	22 6¼	24 0	1629	36 11½	21 4
1599	23 0	21 0¼	1630	56 9½	22 6
1600	26 10	26 8	1631	44 5	22 8
1601	17 6	.....	1632	43 4	22 8
1602	21 0	17 4	1633	43 3	22 8
1603	22 11½	18 8	1634	42 7½	22 8
1604	25 2¾	21 4	1635	40 6½	22 8
1605	23 2	19 4	1636	40 4¼	24 0
1606	25 10	24 0	1637	40 1¼	30 0
1607	34 3	27 4	1638	33 5¼	34 0
1608	43 8½	30 8	1639	28 4	26 0
1609	29 10½	22 8	1640	36 0	.....
1610	33 2¾	24 1¾	1641	30 1¾	21 6
1611	36 6½	31 4	1642	27 3	24 8
1612	38 8	32 0	1643	29 2	24 0
1613	41 4	32 0			

Grudgins.—Decennial Averages.

	Wheat.	Grudgins.		Wheat.	Grudgins.
	s. d.	*s. d.*		*s. d.*	*s. d.*
1583—1592	17 8	22 8½	1613—1622	30 2	29 4
1593—1602	28 6½	30 1¼	1623—1632	38 11¾	24 6
1603—1612	31 4	25 1¾	1633—1643	35 5½	25 2½

Mustard Seed and Mustard Meal.
Decennial Averages.

	Mustard Seed.	Mustard Meal.		Mustard Seed.	Mustard Meal.
	s. d.	*s. d.*		*s. d.*	*s. d.*
1583—1592	34 2	53 4	1663—1672	.....	.....
1593—1602	39 2¼	62 10	1673—1682	95 0	.....
1603—1612	54 2¼	68 7	1683—1692	99 1¼	.....
1613—1622	53 6½	76 0	1693—1702	89 11	.....
1623—1632	54 7¾	135 0	First 60 years	48 10½	.....
1633—1642	57 6¼	152 0	Last 30 years	94 0	.....
1643—1652	.....	.....			
1653—1662	.....	.....			

CHAPTER XI.

ON THE PRICE OF STOCK AND MEAT.

FOR some years into the seventeenth century the great corporations, which have principally supplied me with details of information, purchased cattle and sheep for their domestic consumption, and after they ceased to buy live stock, bought beef and mutton by the carcass. This is shown for example at Eton, where the skin of the ox and the wool or fell of the sheep are duly entered among the liabilities of the bursar. Nor do I doubt, if we could only find the accounts, that the purchase of sheep by Magdalen College, Oxford, which remained a late practice of this society, would illustrate the price of wool late into the seventeenth century. But unfortunately the accounts of receipts by this society have disappeared.

This kind of stock was purchased at distant markets. Eton College sends into remote counties to buy cattle and sheep, the cost of driving them to the College closes being a considerable item in the charge of supply. So the Magdalen College manciple goes to similar markets for his stock, which were no doubt after purchase kept in the meadow adjacent to and enclosed within the College walks, and were used in the kitchin as need arose. After 1640 there occurs a gap in the Eton accounts, and when, three or four years later, the *computus* begins again, the College drops buying beef by the whole carcass, and keeps up the practice of purchasing sheep

for only a brief period. It is probable that the duty which previously devolved on the College bursar is transferred to some inferior official.

But at or about the time in which the Eton account ceases to supply the requisite information, the surviving accounts of Winchester fill the void, with the addition of the number of oxen bought, and the number of pounds of beef which they yielded. Hence the Winchester records inform us as to the weight of the ox ordinarily purchased and consumed by a great corporation. I imagine that these weights are of the dressed carcass, and that if we are to calculate the live weight, we must add three-sevenths to the recorded weight, on the principle adopted in London markets and others near London, of reckoning eight pounds to the stone of meat, the other six being skin, horns, and offal. Thus the average weight of the Winchester and other oxen for the forty-five years in which they are registered is 588 lbs. If I am right in this interpretation, the average live weight of the Winchester ox is a little under 836 lbs.

Occasionally the Winchester account omits the weight in pounds, and gives only the number of the oxen bought and the price per head. This is the case in 1665. Sometimes it leaves out the number of the oxen, and gives only the weight of the beef purchased. At last, in 1689, it adopts the practice of giving the weight only and the price by the hundredweight. But the register of the forty-three years is sufficient to illustrate what was the ordinary size of cattle consumed in a large and wealthy establishment. Now in vol. iv, p. 332, note is taken that oxen bought for navy stores in the reign of Edward VI were about four cwts. in weight; this I conclude being dead weight. The average of the Winchester beasts is a little over five cwts., and the difference seems to show an improvement in the size of the animal.

It is however pretty certain that occasionally oxen are fatted to a far larger size than the Winchester average suggests. Thus in 1603 a number of fat cattle are sold at

Towstock, which is probably the modern Tostock in Suffolk, the prices ranging from 166*s.* 8*d.* to 133*s.* 4*d.* Now I am able to state that the price of beef in this neighbourhood was in this year and at the same period of time at which these sales were effected at from 1¾*d.* to 2*d.* a pound. Hence if we take the highest of these prices, and assuming that the live weight of the animal, pound for pound, did not differ materially in value from the dead weight pound, the weight of the highest priced ox in the Towstock sale could have been but little less than 1000 lbs., while if the live weight is to be put at a lower figure per pound, the weight will be proportionately increased. Again, in 1642 at Hickstead, a place the locality of which I have not yet identified, eight fat oxen are sold at £11 a piece, one at the enormous price of £21, and three others at £10 6*s.* 8*d.* each. Now at this time beef was at 24*s.* the cwt., and the largest of these animals, if there be not as I greatly suspect some error in the original account, must have been fully up to the weight of the largest modern stock.

Hitherto I have referred to oxen for the table only. But many other kinds are mentioned, though not so variously or so plentifully as in earlier periods of this history. Of these the most significant are those purchased or sold for plough or draught. Of these there are fifteen entries, ranging in price from 100*s.* the yoke to 224*s.* 6*d.*, the notices being between 1584 and 1642, and the average being 151*s.* 3*d.* the yoke. Other names are cows, bulls, stirks, bull and ox stirks, steers, beasts, kine, bullocks, heifers, twynters, barrens, beeves, country steers, runts, yearlings, cows in calf and with calf, and milch cows.

There seems to be some sign that the breed of cattle was being improved, for some bulls, these animals having been generally low-priced, are now occasionally dear. I have found one at 120*s.* in 1616, another at 167*s.* 6*d.* in 1645, and one at 200*s.* in 1678. The average of twenty entries is 73*s.* 7*d.*

The whole of these entries of other kinds of cattle beyond

those destined immediately for the table are taken from the few private farming accounts which I have been able to discover. These accounts, I am informed on the best authority, are exceedingly rare, for the great public libraries have readily purchased, and at high prices, all domestic accounts of the seventeenth century which they have been able to come at, and find their opportunities most exceptional. Very frequently these animals were lean stock expressly purchased or sold to be put into pasture in the spring, and being grass-fed, to be sold in autumn. Thus in 1633, D'Ewes buys three 'old cows' at 51*s.* 8*d.* apiece, on May 15. Four months afterwards, on September 13, he sells two of them at 78*s.* 4*d.* and 66*s.* 8*d.*, and the third on Oct. 11 at 80*s.* 4*d.* From his profit of 70*s.* 4*d.* must be deducted the value of his grass, which could hardly be less than 55*s.*, or a shilling a week for each animal's feed. Two years afterwards, the same country gentleman buys eleven head of cattle in October and five in November, mostly for stock, at an average of 57*s.* 3*d.* But five of them are killed for winter beef, the average weight of the carcass, as D'Ewes informs us in his account, being 396½ lbs. As the five cost him 266*s.* 8*d.*, and they weighed 143 stone 5 lbs., his beef cost him under 2*s.* the stone of 14 lbs. The hides however would be worth about 70*s.* more. Beef at Cambridge was this year worth 3*s.* the stone of 14 lbs., and beef-suet fully 4*d.* a pound or even more.

Cows are quoted in twenty-six years, being described as fat, in milk, and dry. The average derived from the highest prices in three entries is 76*s.* 3*d.*, one entry at Mounthall in 1631 being at 130*s.* It will be seen that the average highest price of cows is little more than half the average price of oxen, taken by the same standard. The cow as we know is always smaller than the ox of the same herd, and it is very likely that hard living in winter during the breeding and milking season tended still further to stunt the animal. Two milch cows in 1587 are bought in November at 60*s.* There are also a few entries of cows with calves. An average from

five entries, one, the highest, at Mounthall in 1631, 120*s.*, gives 83*s.* 6*d.*

Twenty-four entries of 'steers' between 1583 and 1669 gives an average of 61*s.* 4½*d.* The word is generally supposed to mean a young ox, though occasional prices, as 113*s.* 4*d.* in 1617, 101*s.* in 1642, suggest that the animal was brought to early maturity. Eight entries of 'runts' between 1617 and 1669 give an average of 73*s.* 1½*d.* The word appears to be local. Twelve entries of 'bullocks' give an average of 41*s.* 8½*d.*, this being the lowest price of horned cattle. Eight entries of 'kine' supply an average of 62*s.* 2½*d.*, four of 'beasts' one of 76*s.* 3*d.* Twenty-one entries of 'heifers,' sometimes described as in calf or out of calf, give an average of 54*s.* 7½*d.*

Beef. The important series of prices of beef at King's College, Cambridge, of which the continuity is unbroken,—for the single year 1619, in which the mundum or particular book is lost, supplies me with prices from the commons book which is preserved,—is a register of the most significant kind. It will be seen that the price rises slowly from 1*s.* 10¼*d.* the stone of fourteen pounds in the first decade, to 3*s.* 6*d.* in the last, the progress being fluctuating over a small margin. Here again it is noteworthy that the three dear years 1648–1650 are the dearest meat years in the century, and that the three years 1690–1692 show lower prices than had now become customary. It appears from certain entries that it was the custom of the College to distribute the stone of beef into three dishes, *fercula*, when it was served upon the dinner table. By an oversight, in one of the years (1688) the price of beef was not copied from the King's College book, and is absent from vol. vi, p. 301, col. ii; but it has been since obtained from the original. Another series, unfortunately continuous only for the later period, is that derived from Winchester College. This series begins with the year 1644–5, and with the omission of one year, 1665, when the College was temporarily as it seems dispersed owing to the preva-

lence of the plague at Winchester, was continued to 1700, after which the house bursar begins to enter cost without quantities, a disappointment in accounts which I have been constantly obliged to endure.

The Winchester beef is generally cheaper than that purchased at Cambridge. It may be that this fact is the result of local cheapness, it is possibly due to the fact that the Fellows of a Cambridge college might be more particular in supplying their own wants than the Fellows of Winchester were in catering for the schoolboys. There is again more fluctuation in the Winchester prices, though the margin is narrow. There are to be sure six years (1668–1673) of remarkable cheapness, the price in the last year falling to the lowest of the whole register, *2s.* 4¼*d.* The highest price recorded is in 1666, when beef stands at an average of *3s.* 7*d.* But the difference in the general average is not considerable, for during the last sixty years of the Cambridge series the price is *3s.* 5½*d.*, while at Winchester it is *3s.* 2*d.*

In p. 139 of his Political Arithmetic, Arthur Young gives a series of beef and pork prices by the cwt., extracted from the records of the Victualling Office, observing that these prices are lower than those of ordinary markets, as might be expected in the case of contracts on a large scale. Now of Young's prices, twenty years (1683–1702) come within the present period. For the whole twenty years the average is *2s.* 9*d.*, while at Cambridge it is *3s.* 5½*d.*, at Winchester *3s.* 2*d.* Young comments on the fact that during the time at which he is writing, 1774, beef was very little dearer than it had been in the seventeenth century, though wheat was greatly enhanced in price.

These are however not the only entries of beef which the tables afford. The most considerable additional series is one from Theydon Gernon for an unbroken period of twenty years, where beef is bought by the stone of eight pounds, or as it is sometimes called, the nail. These twenty years are 1601–1620, the average in the first decade being *1s.* 5*d.*, in the

second 1*s.* 6*d.* the stone, or, turned into the Cambridge reckoning of fourteen lbs. to the stone, of 2*s.* 5¾*d.* and 2*s.* 7¾*d.*, a price which almost exactly corresponds with that of Cambridge in the same period. In one of the Theydon years, 1609, a London price of the same amount is recorded; in another, 1614, a price from Harting in Sussex is also given, where meat is much cheaper, 1¾*d.* a lb.; and again at New College, Oxford, where a very large amount is bought in 1617, at 2*s.* 8½*d.* the stone of 14 lbs.

London gives evidence of the price of beef at the beginning and end of the period. It is found for the three years 1593–1595 at an average of 1*s.* 4¾*d.* the stone of 8 lbs., or 2*s.* 5*d.* that of 14 lbs.; in 1609 at 1*s.* 6*d.*, or 2*s.* 7¾*d.* It is found at 3*s.* 10*d.* the large stone in 1685, and for the three years 1697–1699 at an average of 2*s.* 0½*d.* the small stone, or 3*s.* 7*d.* the large.

There are four entries from Mendham, 1583–86, at an average of 1*s.* 4¼*d.*, and the stone is probably the small weight. But three others in 1626, 1633 and 1638 are of the larger stone. They are 2*s.* 4*d.*, 3*s.* and 2*s.* 11½*d.* Three years at Mounthall, 1652, 1653 and 1655, are of the small stone, at 1*s.* 6*d.*, 1*s.* 10*d.* and 1*s.* 4*d.* Four at Horstead Keynes in 1657, 1659, 1661 and 1663, in which last year the weight is called 'nail,' are at 1*s.* 10*d.*, 2*s.* 1*d.*, 1*s.* 6*d.* and 1*s.* 8*d.* Another in 1678 at Hickstead is by the small weight, also 1*s.* 8*d.*

There are only a few purchases at Oxford. There is a large amount bought in 1617, at an average of 2*s.* 8½*d.*; and in two years 1643, 1645, a great amount is bought as store against the siege at 3*s.* 11*d.* and 3*s.* 8½*d.* the large stone. In 1685 it buys at 2*s.* 8*d.*, and in 1692 at 2*s.* 11*d.* In 1677 beef is bought at Woodstock at 2*s.* 8*d.* the large stone, and in 1693 at Hurley in Berks at the rate of 3*s.* 2*d.* Besides the invaluable series of King's College there are fifty-one other entries, which would indeed have justified me in inferring as to the general price of this kind of food, and serve to confirm and illustrate the Cambridge record. To these may be added

fifty-six from Winchester and twenty from the Victualling Office.

Meat, and especially beef, is dearest in early spring, cheapest in the autumn. And here again I may insist on the importance of taking the agricultural year from September to September as a test of produce prices, and not, as is customary, the civil year from January to January. It will be clear that if a year of great scarcity such as 1661 falls in between two average years as this does, the whole of the agricultural inferences are vitiated by adopting the common process of calculating yearly values. Meat was cheapest of all just as winter was beginning, for as yet agriculture had not made such progress among farmers as to supply abundant winter food, and consequently the pickling tub was, and for a long time after my period closes remained, a necessary article in the kitchen or larder of all families which made provision. For this reason, the importance of dated purchases in meat cannot be overrated, and thus I have been careful, especially in the Cambridge series, to designate the quarters of the year by which the King's College bursars made up their accounts for the annual audit. Dated purchases are the only means by which agricultural produce may be made to yield evidence, in the hands of those who are competent to treat figures, of the seasons; and I repeat here what I said a quarter of a century ago, when I commenced this enquiry, that I am far from having exhausted the inferences which may be gathered from the figures and facts in the volumes of evidence. They are a mine which cannot be easily worked out.

Besides the record of the price of meat, there is considerable evidence in the early part of the period as to that of suet, used I believe in ancient as in modern times for Christmas puddings and minced meat. As was noticed in earlier volumes, fats, especially the hard fats, are a good deal dearer than meat. Entries of suet occur during the first sixty-three years in forty-three years, but during the residue of the period only twice. It is generally from 3*d.* to 4*d.* a pound, but is sometimes much

dearer, as in 1600 and 1638, when I find an average of 5*s.* and 6*s.* 3*d.* the dozen pounds.

CALVES. The evidence on this subject, though sometimes copious for the year, is very broken, and disappears in the last decade. The greater part of the information comes from College expenditure, particularly in the earlier part of the period from Magdalen College, Oxford, which buys these animals very extensively. I find under the year 1645 that veal is bought for Lord Spencer's house by the stone at 2*s.* 7½*d.*, and again in 1678 at Hickstead at from 2*d.* to 2½*d.* and 2¾*d.* the pound. The stone is no doubt that of fourteen pounds, and I should infer from the average price of the highest priced calves and those two entries of veal by the stone and the pound that the animal was slaughtered when its carcass would come to about 94 lbs. weight. Calves are almost always bought, in such accounts as determine the time of purchase, in the fourth quarter, i.e. from Midsummer to Michaelmas.

SHEEP. There is no year without entries of sheep, though I have failed to give average prices of sheep for a few years during the latter part of my enquiry. As before, I have given two tables, one containing the highest priced animal of the year, the other an average from all the entries. But as the regular presence in one account of a very large and high-priced animal would have completely vitiated the averages of the commoner sort, I have omitted this particular sheep from the general average.

In the year 1668 the Fellows of Eton begin the custom of purchasing what the College accounts designate as the 'Election ram,' and except in one year, 1669, regularly give the weight of the animal. In this year, as the price is exactly the same as that of the previous year, I make no doubt it was of the same weight. The price per pound varies from 3*d.* to 4*d.*, and it is sometimes given. This was I conclude a full-grown wether carefully fatted for the Election feast, the College taking pride in the bigness to which they could get the animal fed. Towards the end of my period they get it up to actually

140 lbs., when they pay at the rate of 3¼*d.* a lb. I have not gone through and reduced all the entries, but the price always comes to even money when interpreted by the weight. The custom is still remembered at Eton, and I was told, when I was examining the Eton archives, that it was the custom for the boys to hunt the ram when it was brought to the close.

My reader will notice that this special sheep was a very different animal from those which were ordinarily purchased at Oxford, Cambridge, Eton, and Winchester, at some of which corporations, almost regularly at the last named, the weight of the animal is given. Occasionally the weights are given at New College, Oxford, in the earlier part of the period; and if we can discover sufficient evidence as to the price of mutton, it would be possible to construct hypothetical weights from the prices given for animals which occasionally come up to and even exceed the cost of the 'Election ram.'

It is known that two centuries before the time on which I am writing, as I stated in an earlier volume (vol. iv. p. 303), there were many different kinds of wool, and therefore breeds of sheep. It is not likely that the tradition or the reality of those varieties passed away, especially as English wool during the seventeenth century still preserved its reputation in the market, though the policy of Parliament was to forbid its exportation. It is I think clear, from the price at which some sheep were bought by Magdalen College, Oxford, that they must have been very different in breed from those purchased at Cambridge, where the price is low, and those at Winchester and New College, where the weight is low. In the record of wool prices given in the Rolls of Parliament, and reprinted in vol. iii. p. 704, Suffolk wool is the lowest priced of any, and Cambridgeshire wool is of low value, and in all likelihood the animal was as inferior as his fleece.

Magdalen College and New College, Oxford, and Eton purchase sheep very extensively, going considerable distances to get their supplies. I cannot of course be certain, but I think that Magdalen must have generally bought Cotswold, and Eton

Southdowns, the latter to a comparatively recent period having been small. But on the other hand, in the case of the four muttons bought at Bath in July 1617–18 and of the twenty at Northiam in 1618–19 at 22*s.*, the weight of the sheep, mutton selling these years at 3*d.* a pound, could hardly have been less than 80 lbs. and 88 lbs. respectively. And on the other hand, in the first of these years Eton buys 911 at an average of 9*s.* 6½*d.*, and in the next 859 at 9*s.* 6⅜*d.* These should weigh in the carcass a little over 38 lbs. In 1617, the New College sheep weigh on an average 42 lbs. 6 oz. In the same year (1617) Cambridge buys 201 sheep at an average of 9*s.* 11*d.*, and in the next (1618) 243 at 10*s.* Even lower rates are paid at Theydon, sheep, apparently for the table, being often bought at 7*s.*

By far the largest part of my entries are purchases for consumption, and as time goes on, purchases by the carcass. But it is clear from the accounts of Magdalen College and Eton, that these corporations purchased lean stock, or at least store stock, which they herded, and consumed as occasion required. As in the case of cattle, purchases of sheep were always effected on the best terms late in the year, and by those who could keep them on hay or other fodder through the winter, grass being extensively used for the purpose. Still there are some distinctly agricultural accounts from which I have derived information, for the country gentleman of the seventeenth century constantly cultivated a portion of his estate. Thus in 1583 and onwards Lord North buys store wethers; in 1584 Magdalen College buys ewes with lambs, and Lord Pembroke hoggs and tups. And similarly in the last few years of the period, the owner of Foxcombe buys a considerable flock in November, no less than 587 different kinds, wethers, tegs, and ewes, designating the latter as Dorset. Similar facts could be supplied from other entries.

Comparatively little evidence is found of mutton by the pound or stone, and when it is given it is most frequently indirect, that is, the sheep is bought by the carcass, with the

weight and price given. But the Winchester accounts generally give the weight, number, and price of the sheep, and as I have stated Eton always states the weight of the Election ram. There is very little difference between the price of beef and mutton.

Besides the general names of sheep, ewes, rams, wethers or muttons, and lambs, I find tups, tegs, yeans, paria (this being a Magdalen College name), crones and hoggs. Paria are probably two-tooths. Crones do not always mean old sheep, for the term is sometimes given to lambs, but sheep of all ages, provided they do not seem serviceable for the flock, or like to do well. In the old accounts these sheep were called 'kebb,' a word now not only obsolete but forgotten. Under 1642, kids are purchased at Winchester.

Lambs are found in only sixty-eight years of this period. The term appears to be used of all produce which is under a year old. They do not seem to be very generally purchased at the Colleges, unless indeed they are occasionally included under the generic name of sheep. It was long a custom for lamb to be served up at the Easter feasts.

SWINE, ETC. The price of boars or brawns is very fully given, only seven years being wanting in my accounts. They are purchased at Oxford, Cambridge, and Eton. Every care was taken to secure the fullest size and weight for the animal, and I imagine that it was due to the expenditure on this Christmas dish that the great difference between the price of boars or brawns in the earlier and later parts of the period is traceable. It would seem that the purchaser stipulated for a certain weight. I have given in the subjoined table the highest price only, but very often there are several entries from the same place in the same year. The term boar is probably used for any full-sized swine which was fattened in the stye.

Besides boars, full-grown fattened swine, our forefathers were great consumers of sucking-pigs, the *porcelli* of the old accounts, and now generally called pigs, the larger animal

going generally by the name of hog. I have by no means a continuous price of pigs in the old sense of the word, though had the Commons books survived, the information would have been abundant.

Sucking-pigs, sometimes called by this name, appear in the accounts for fifty-six years, for the first eleven years uninterruptedly, and again for seventeen years after 1598. But there is no entry for thirty years, between 1654 and 1684. Only two of the decades are however unrepresented, though one entry in 1654 of 'a pig' at 4*s.* probably represents a larger animal than was ordinarily served up. The averages of the several decades, omitting this entry, are 1*s.* 2¼*d.*, 1*s.* 4*d.*, 1*s.* 6½*d.*, 1*s.* 11*d.*, 1*s.* 9*d.*, 2*s.* 0¾*d.*, 2*s.* 4*d.*, 2*s.* 5½*d.* and 2*s.* 2¼*d.*, most of these entries coming from the Commons books, though between 1601 and 1620 Theydon Gernon supplies several. I have very little evidence of the price of pork by weight in the earlier period. There is in 1586 one by the stone at Worksop, i.e. a little over 1¼*d.* the lb. If this is any guide, I should infer that these sucking-pigs were served when they were about ten or twelve pounds weight. In the later part of the period, when the average is about 2*s.* 4*d.*, pork is regularly quoted at 3*d.* a pound, and this price does not give a materially different conclusion. The facts are further illustrated by the price of 'weanyer' pigs in 1685 and 1693 at Cuckfield, they being described as small in the latter entry. This word is plainly synonymous with the Hampshire name for young pigs, 'shoot',[1] which I find at Foxcombe in 1700, priced at 7*s.* 3*d.* These are no doubt young pigs of five to six months old, and are also to be identified with the little swine, priced at 6*s.* 8*d.* in 1634, and perhaps a 'pork' at 2*s.* 4*d.* in 1605, and the little hogs of 1602 at 4*s.* 6*d.*

Boars and sows purchased in pairs for stock have been found twice, in 1615 and 1631, at 40*s.* and 33*s.* the pair. Sows, evidently lean, are found in 1588 and 1589, at 10*s.* 7*d.* and 10*s.*; and great swine in 1634, at 18*s.* 8*d.* Sows with farrows have

[1] This word is not in Halliwell, but is quite familiar to me, from my early Hampshire experiences.

been found six times; one with seven in 1590 at 19*s.*; one with six in 1593 at 11*s.* 8*d.*; one with five in 1606 at 20*s.*; one with five in 1615 at 30*s.*; one with nine in 1693 at 50*s.*; and one, given with no number, in 1695 at 40*s.* These figures indicate a considerable rise in price. A fat sow in 1592 is sold for 39*s.*, and the dressed carcass, according to the price of the time, must have been close upon three cwts., or near seventeen score.

Hogs and porks, the word appearing to be used indifferently, are occasionally found. During the first thirty years thirteen such entries are found, with an average of 10*s.* 2*d.* But after this the price rises rapidly, due no doubt to the fact that the animal was more thoroughly fatted. In 1643 a pork is 24*s.*, the latest entry under this name. But the five entries of hogs give the following prices: 1655, 33*s.* 4*d.*; 1656, 30*s.*; 1693, 90*s.*; 1694, 55*s.*; 1696, 92*s.* These later prices all come from Harting, the seat of the Caryls.

I have already commented on the price of pork in 1586. In 1638 it is purchased by the quarter at 6*s.* 5*d.*, i.e. at 25*s.* 8*d.* the carcass, which corresponds with the prices just referred to. Later in the period pork is generally 3*d.* a pound. But in 1677 a leg is bought at Woodstock, 7 lbs. in weight, at 6*d.*; and another at the same place in the following year of the same weight and at the same price. Bacon is always considerably dearer than pork. In 1595 it is 1*s.* 9¾*d.* the stone in London, i. e. nearly 2¾*d.* a pound. In 1614 it is at 4*d.* at Harting, where two flitches, sold at 14*s.* a piece, should, on the same computation, be of 42 lbs. each. In 1634 there is an entry in D'Ewes' accounts at 4*d.* In 1643 and 1644, New College, Oxford, laying in provisions against the siege, buys sixteen flitches of bacon, six in the first year, each at a little over 45 lbs., at 5*d.* the lb., and ten in the second, of less weight, between 33 lbs. and 50 lbs., eight in the aggregate 341 lbs., at 5*d.*, one of 33 lbs. at 4¾*d.*, and one of 38 lbs. at 4½*d.* In 1659, four nails of bacon are bought at Horstead Keynes at 5*d.* the lb. In 1679, 15½ lbs. are sold at Harting at 6*d.*, and in 1692 a pound

costs 7*d.* at Maidenhead, while 18 lbs. are bought by the Winchester manciple at 5*d.* Collars of brawn are bought in Oxford in 1643 and 1646 at 4*s.* 4*d.* and 4*s.* 6*d.*

During the first six years of his 'Collections,' i.e. till he altered the form of his paper, Houghton gives prices of pork. The entries are curious, because they indicate the time when pork was in season. In 1692 the quotation ceases at the end of May, and reappears at the beginning of August. In 1693 the last quotation is on April 20. In 1694 the first is on Nov. 26, the last on May 10. In 1695 the first is on Nov. 8, the last on April 25. In 1691 the price at Falmouth is 21*s.* the cwt., in London 25*s.* 6*d.*, or by the stone 2*s.* In 1692 at 2*s.* 7½*d.* the stone. In 1693 it is 22*s.* the cwt. at Falmouth in October, 23*s.* in December, 26*s.* in May. These prices are no doubt of ship stores. It is 3*d.* a pound in Dorchester and Norwich, 2*s.* 8¾*d.* in London by the stone in the same year, 2*s.* 8¾*d.* in 1694, 2*s.* 7*d.* in 1695, and 2*s.* 5¼*d.* in 1696.

There is yet a third source of information as to the price of pork, in the register of the Victualling Office, from 1683 to 1747, printed by Arthur Young in his Political Arithmetic, and referred to for the price of beef above. This gives an average of 25*s.* 10*d.* the cwt. for navy pork in the decade 1583–1692, and 32*s.* 1*d.* for 1693–1702. These prices give 3*s.* 2¾*d.* the stone of 14 lbs. for the first, and 4*s.* for the second period.

HORSES. Most of my entries of the price of horses are those for saddle and coach, some of the Colleges of Oxford and Cambridge providing the latter convenience for their Heads, and some private persons also recording their purchases in their domestic accounts. As before I have taken the highest prices, as best indicating the state of the market. The information is copious, only five years failing to supply me with evidence. A very considerable amount of this evidence comes from an account book of a horse-dealer in Essex, which I purchased a good many years ago. I can identify the country from the entries of markets, but I cannot find the writer's name or residence.

By far the largest number of these entries are for saddle-horses, purchased by the Head and Fellows of the different societies whose accounts have contributed so much to this enquiry, for the progresses which they make for the collection of their rents and the inspection of their estates. This intimate acquaintance with landed property and its capabilities was part of the training of an Oxford or Cambridge Fellow in the sixteenth and seventeenth centuries, and became an experience which their successors have very ill dispensed with in these later times. The College stable has supplied me with most of the information which I possess, not only about horses and saddlery, but with the prices of hay and straw, oats, peas and beans.

In the sixteenth century, entire horses, which were almost universally employed in an earlier period, began to be disused, though they are still occasionally found. Besides the common name of horse, I find geldings, mares, nags, and colts.

The colours which our ancestors in the sixteenth and seventeenth centuries recognised in their horses are very numerous. The following occur in the purchases: white, grey, grey fleabitten, iron grey, dapple grey, dark grey, brown, brown bay, brownish, bay, dun, mouse dun, black, fleabitten, sorrel, pied, grisled, piebald, sand-coloured, chestnut, roan, and bald-face. They are described as trotting and ambling, as sumpter, as coach, occurring for the first time in 1614, and mill-horses. Sometimes names are given to them, but I have only found Ginger, Crabb, Banks, Huggins, and Thief.

There is very little change in the price of horses, taken on an average during the first thirty years of my period. Then the price begins to rise for the next thirty years, and though the dear decade 1643–1652 does not represent the highest average of the whole, the exaltation over the thirty years that precede it is very marked. In the period 1673–1682 horses are decidedly dear. Thus in 1673 a horse is bought by All Souls College at £30 5*s.*, and two others at Cambridge at £20 each. In 1674, Winchester gives £15 8*s.* 6*d.* for a saddle-

horse; in 1675 a colt costs £15 at Harting; in 1677 Magdalen gives £17 10*s.*, New College £39 10*s.* for two. In 1678 Cambridge buys at £20 5*s.*, and in 1681 a gelding is bought at Maidenhead for £25 16*s.* The general average is depressed by the prices of 1682, when horses are bought in London, some certainly for the cart, and the others of doubtful purpose.

It is not of course possible to discover at this distance and with such slight hints as to the character, size and breed of horses, whether any serious attempts had been made to improve saddle and coach horses during the seventeenth century. We do know that horse-racing, which had been an occasional pastime in the early part of this century, became a regular amusement at the end of it, and that Godolphin, the minister of Charles, James, William, and Anne, was as famous for his stud of racers as he was for the ability with which he managed state affairs, and for the tenacity with which he clung to office. But we can hardly guess as to the extent to which Arab stock was brought into the English strain. The pictures of the animals at the time seem to show that they were big and lumpy, and that an easy-trotting or ambling horse was worth describing as such in the meagre notices of a bursar's account [1].

[1] Since writing the above I have found among the Pepys papers in the Rawlinson collection (A. Bodleian) some household accounts of the Secretary to the Admiralty. One of these, dated October 1676, is a butcher's bill. In it suet is 6*d.* a pound, neck of mutton 3*d.*, a quarter weighing 15 lbs. at 4*d.*; beef the stone (8 lbs.) at 2*s.* 2*d.*; pork 2*s.* 3*d.*, and gravy beef 3*d.* a pound. This by the large stone is 3*s.* 9½*d.* for beef, 3*s.* 11¼*d.* for pork. The same papers state that the navy bought by contract as stores for garrisoning Tangier in Jan. 1664 9012 lbs. beef at 3*d.*, 550 lbs. pork at 4*d.*, 1530 bushels of peas at 6*s.*, and 386 bushels of oatmeal at 7*s.* 6¾*d.* the bushel.

	Oxen, highest price.		Beef, stone of 14 lbs., King's College.		Calves, highest price.		Sheep, highest price.		Lambs, highest price.		Sheep, Average.		Boars, highest price.		Horses, saddle or coach, highest price.			Weight of Oxen.	Election Ram.	Weight of sheep.
	s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	£	*s.*	*d.*	lbs.	lbs. oz.	lbs. oz.
1583	113	4	1	9	12	0	7	$10\frac{3}{4}$	4	0	6	$3\frac{1}{4}$	21	0	7	0	0	.....	.....	.....
1584	90	0	1	$7\frac{1}{2}$	10	0	9	0	4	0	6	$9\frac{1}{2}$	25	0	9	0	0	.....	.....	.....
1585	120	0	1	$8\frac{1}{2}$	12	0	10	0	.....		7	$4\frac{1}{2}$	23	4	16	0	0	.....	.....	.....
1586	81	0	1	11	10	0	12	0	4	5	7	$4\frac{1}{4}$	23	0	8	0	0	.....	.....	.....
1587	84	$2\frac{1}{4}$	1	$9\frac{3}{4}$	9	$4\frac{1}{2}$	12	0	5	0	7	9	30	0	13	0	0	.....	.....	.....
1588	81	0	1	$9\frac{1}{2}$	11	0	10	0	8	0	7	7	26	8	15	8	6	.....	.....	.....
1589	75	9	1	$10\frac{1}{4}$	.....		8	$5\frac{3}{4}$	2	$3\frac{1}{2}$	7	8	33	4	14	2	6	.....	.....	.....
1590	75	$0\frac{1}{2}$	2	$0\frac{1}{4}$	13	4	13	4	4	10	9	2	33	4	10	10	2	.....	.....	.....
1591	74	0	2	$1\frac{1}{4}$	12	3	13	4	4	7	8	7	33	4	8	0	4	.....	.....	.....
1592	76	$3\frac{1}{2}$	2	$0\frac{1}{4}$	13	1	12	$9\frac{1}{2}$	4	6	9	$6\frac{3}{4}$	33	4	.....			.....	.....	.....
1593	140	0	1	$11\frac{3}{4}$	13	7	13	0	6	0	9	$4\frac{1}{4}$	33	4	8	10	0	600	.....	.....
1594	92	2	2	0	14	5	15	6	4	0	10	$6\frac{1}{2}$	34	0	13	6	8	.....	.....	.....
1595	89	$6\frac{1}{2}$	2	$1\frac{1}{2}$	16	0	16	0	4	0	11	$6\frac{1}{4}$	33	4	10	0	0	.....	.....	.....
1596	99	$7\frac{1}{2}$	2	$1\frac{1}{2}$	13	9	14	0	4	0	10	2	33	4	11	0	0	.....	.....	.....
1597	95	$8\frac{1}{4}$	2	$2\frac{3}{4}$	14	2	14	9	4	0	10	1	43	4	11	0	0	.....	.....	.....
1598	82	6	2	$5\frac{1}{4}$	13	0	12	4	4	0	9	$10\frac{1}{2}$	44	0	15	0	0	.....	.....	.....

	Oxen, highest price.	Beef, stone of 14 lbs., King's College.	Calves, highest price.	Sheep, highest price.	Lambs, highest price.	Sheep, Average.	Boars, highest price.	Horses, saddle or coach, highest price.	Weight of Oxen.	Election Ram.	Weight of Sheep.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	£ s. d.	lbs.	lbs. oz.	lbs. oz.
1599	103 6	2 5	13 10	14 9	4 0	10 0½	44 8	12 8 3	.....	.....	.....
1600	126 0	2 5¼	17 0	14 0	.....	10 4	40 0	13 15 0	.....	.....	.....
1601	88 6	2 4	13 2	12 7	5 0	9 4½	40 0	13 0 0	.....	.....	42 8
1602	117 0	2 2¼	15 4	12 3	.....	9 2½	40 0	11 0 0	.....	.....	37 7
1603	166 8	2 1	13 4	14 9	.....	9 10¼	40 0	8 4 0	.....	.....	36 3¾
1604	129 2	2 3½	13 4	14 8¾	.....	9 3	40 0	13 3 4	.....	.....	.....
1605	114 3	2 4½	13 11	13 0	5 10¾	8 10½	40 0	7 12 6	.....	.....	.....
1606	95 1	2 4	.....	14 0½	7 10½	9 0¾	42 6	9 0 0	.....	.....	37 6
1607	131 2	2 4½	14 9½	13 0	5 3¼	9 6½	40 0	16 2 6	.....	.....	.....
1608	126 9	2 4½	14 10	14 0	6 3¼	9 9	40 0	11 12 0	.....	.....	.....
1609	128 6	2 7½	20 6	12 6½	6 0½	9 9¼	45 0	11 5 0	.....	.....	.....
1610	134 0	2 8	15 2	12 0	5 7½	11 0½	40 0	9 2 6	.....	.....	.....
1611	138 4	2 8	13 9	14 0	5 6	9 8¾	40 0	18 0 0	.....	.....	36 10½
1612	133 3¼	2 8	14 10½	14 8	7 2½	11 5¼	40 6	14 0 0	.....	.....	.....
1613	134 1	2 8	16 6	15 6	6 9¼	11 5½	45 0	13 6 8	.....	.....	.....
1614	142 11	2 8	14 5¼	15 4	6 3¾	10 6¼	52 0	15 0 0	.....	.....	.....
1615	146 2¼	2 8	14 10¼	15 0	6 11	11 11¾	63 4	10 13 0	.....	.....	.....
1616	135 4	2 8	16 5	15 0	7 5½	10 7¾	54 4	8 10 0	.....	.....	.....

	Oxen, highest price.	Beef, stone of 14 lbs., King's College.	Calves, highest price.	Sheep, highest price.	Lambs, highest price.	Sheep, Average.	Boars, highest price.	Horses, saddle or coach, highest price.	Weight of Oxen.	Election Ram.	Weight of Sheep.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	£ *s.* *d.*	lbs.	lbs. oz.	lbs. oz.
1617	137 5	2 7½	14 11½	20 0	10 0	13 0	55 0	12 19 0	.....	.....	42 11½
1618	139 4¾	2 8	15 11	22 0	6 8	14 2	41 0	13 2 6	.....	.....	.....
1619	137 11	2 8	14 7	15 6	6 4¾	12 3¾	50 0	17 10 0	.....	.....	.....
1620	138 2½	2 8	.....	16 0	6 5¼	10 8½	40 0	18 6 8	.....	.....	.....
1621	132 2½	2 8	14 3	14 0	8 4	10 7	42 0	11 0 0	.....	.....	.....
1622	131 3	2 6½	14 8	14 0	6 5½	10 5	40 0	11 0 0	.....	.....	.....
1623	129 5¾	2 6	14 0	15 6½	5 5¾	10 4	40 0	11 9 0	.....	.....	.....
1624	142 6	2 7½	15 3½	15 0¼	6 6¾	10 11¾	44 0	14 5 0	.....	.....	.....
1625	138 10½	2 8	15 7	17 0	6 6	13 4	56 8	15 15 0	.....	.....	.....
1626	151 3	2 8	16 5	17 8¾	7 9¾	12 5½	55 0	12 0 0	700	.....	.....
1627	153 9½	2 8	16 5½	16 2	7 4¾	12 3¼	55 0	20 0 0	504	.....	.....
1628	152 0	2 8	.....	11 6	6 4½	10 6¾	50 0	7 15 0	.....	.....	39 0
1629	151 10	2 8	17 3½	17 10	6 5	12 7½	60 0	21 0 0	.....	.....	.....
1630	146 5¼	2 8	17 10½	17 3	7 8½	12 6¾	60 0	19 0 0	.....	.....	.....
1631	149 10¼	2 8	17 3	16 4	8 6	12 4¼	64 0	17 0 0	.....	.....	.....
1632	149 6½	2 8	18 0	16 2½	8 0	11 0	66 0	12 12 6	.....	.....	.....
1633	156 10½	2 8	.....	11 6	6 9¾	10 2	66 4	9 0 0	.....	.....	.....
1634	154 9¼	2 10	.....	14 0	6 11½	11 11	65 0	10 6 0	.....	.....	.....

	Oxen, highest price.	Beef, stone of 14 lbs., King's College.	Calves, highest price.	Sheep, highest price.	Lambs, highest price.	Sheep, Average.	Boars, highest price.	Horses, saddle or coach, highest price.	Weight of Oxen.	Election Ram.	Weight of Sheep.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*£ s. d.*	lbs.	lbs. oz.	lbs. oz.
1635	163 5½	3 0	.....	12 6	7 3	10 10¾	60 0	18 0 0	.....	.....	.....
1636	156 11	3 0	.....	12 6	7 3¼	10 11	60 0	19 0 0	.....	.....	.....
1637	170 4½	3 0	.....	12 6	7 5	10 11	60 0	11 1 0	.....	.....	.....
1638	161 5½	3 0	14 8	10 8	7 9¼	9 9¾	78 0	15 5 0	.....	.....	.....
1639	160 8½	3 0	.....	13 4	7 2¼	10 2¾	64 0	12 0 0	.....	.....	.....
1640	162 8½	3 0	.....	14 6	7 3¼	11 2	63 4	16 0 0	.....	.....	.....
1641	.....	3 0	.....	10 0	6 10	10 0	52 10	15 10 0	.....	.....	.....
1642	420 0	3 0	18 0	10 0	6 4	8 7	51 5	13 6 8	.....	.....	.....
1643	114 6	3 0	.....	11 6½	6 11	10 9¼	40 0	12 0 0	712	.....	.....
1644	121 6	3 0	10 0	17 3½	5 6	12 3¼	50 0	10 0 0	552	.....	38 8
1645	221 4	3 0	.....	17 0	.....	11 0	40 0	14 0 0	574	.....	38 3
1646	138 3	3 3	.....	14 0	10 9	10 5¾	40 0	12 12 0	568	.....	43 0
1647	140 9	3 6	.....	10 0¾	.....	9 11	50 0	24 0 0	563	.....	36 6
1648	136 8	4 0½	19 0	14 0	.....	10 9¾	50 0	19 0 0	560	.....	38 8
1649	141 7	4 1¾	.....	13 10¾	.....	11 1½	50 0	19 0 0	575	.....	37 12
1650	144 10	3 10½	13 0	28 0	.....	12 11½	.....	20 15 0	580	.....	38 12
1651	144 8	3 6	12 6	24 0	.....	12 7¾	50 0	32 0 0	578	.....	39 2
1652	143 6	3 6	12 6	26 0	.....	14 10	50 0	12 5 0	574	.....	38 9

	Oxen, highest price.	Beef, stone of 14 lbs., King's College.	Calves, highest price.	Sheep, highest price.	Lambs, highest price.	Sheep, Average.	Boars, highest price.	Horses, saddle or coach, highest price.	Weight of Oxen.	Election Ram.	Weight of Sheep.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	£ *s.* *d.*	lbs.	lbs. oz.	lbs. oz.
1653	130 8	3 6	12 6	26 0	6 6	12 1¾	50 0	25 0 0	576	.....	39 5
1654	134 4	3 3	12 0	12 0	.....	10 5	50 0	26 0 0	581	.....	39 2
1655	127 2	3 0	11 6	12 1	.....	10 3½	50 0	12 1 0	578	.....	39 3
1656	128 9	3 4½	12 6	28 3	.....	14 8	50 0	6 1 9	578	.....	38 13
1657	134 4	3 6	12 0	30 6	.....	15 10½	58 8	17 10 0	572	.....	38 12
1658	147 1	3 6	12 0	25 0	.....	14 3	50 0	15 4 4	588	.....	39 13
1659	147 8	3 6	12 0	15 8	7 6	12 6	.....	11 5 0	592	.....	39 6
1660	145 4	3 6	.....	10 7¾	.....	10 7¾	.....	22 0 0	582	.....	43 9
1661	151 4	3 6	.....	20 0	.....	15 0¼	.....	13 16 0	604	.....	41 9
1662	147 9	3 6	19 9	12 0	.....	11 0	.....	14 0 0	591	.....	40 0
1663	155 2	3 6	.....	20 0	.....	13 10½	52 9	16 0 0	603	.....	40 3
1664	151 5	3 6	.....	10 0	.....	10 0	55 6	11 10 0	600¾	.....	39 13
1665	172 6	3 6	.....	20 0	.....	20 0	.....	14 5 0	.....	.....	.....
1666	156 0	3 6	.....	12 2	.....	11 1	52 3	20 10 0	608	.....	48 13
1667	137 4	3 6	10 6	12 0	.....	10 9	51 5	18 0 0	607	.....	46 13
1668	124 6	3 6	.....	23 4	.....	9 10¼	52 2	12 0 0	596	70 0	39 11
1669	118 8	3 6	20 0	23 4	.....	9 10	50 0	9 4 0	598	.....	.....
1670	120 9	3 6	12 0	17 6	.....	8 4½	73 0[1]	16 10 0	604	60 0	40 0

[1] Brawns.

	Oxen, highest price.	Beef, stone of 14 lbs., King's College.	Calves, highest price.	Sheep, highest price.	Lambs, highest price.	Sheep, Average.	Boars, highest price.	Horses, saddle or coach, highest price.	Weight of Oxen.	Election Ram.	Weight of Sheep.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*£ s. d.*	lbs.	lbs. oz.	lbs. oz.
1671	121 1	3 6	.....	29 2	10 0	9 9	74 9	18 0 0	605	100 0	39 7
1672	118 0	3 6	10 6	25 0	.....	9 11	71 9	12 0 0	600	100 0	39 8
1673	98 10	3 6	12 0	37 6	.....	9 5½	71 10	30 5 0	585	100 0	38 12
1674	112 11	3 6	12 0	26 3	.....	10 2½	76 11	15 8 6	492	90 0	40 0
1675	133 10	3 6	.....	22 9	.....	9 6	74 9	15 0 0	586	78 0	39 14
1676	139 10	3 6	.....	28 0	.....	10 6½	74 3	.....	581	90 0	39 12
1677	167 4	3 6	12 0	19 10	.....	10 6½	79 9	17 10 0	730	68 0	39 8
1678	200 0	3 6	12 0	20 5	.....	9 1¼	76 9[1]	20 5 0	554	70 0	39 12
1679	130 8	3 6	12 0	22 9	.....	9 1¾	77 0[1]	16 5 0	569	78 0	40 0
1680	.....	3 6	.....	23 4	.....	9 2	78 10[1]	14 17 6	.....	80 0	40 0
1681	128 7	3 6	12 0	23 4	.....	10 2	78 9[1]	25 16 0	561	80 0	39 12
1682	138 0	3 6	.....	26 3	.....	9 7¼	84 3[1]	6 13 4	603	90 0	40 4
1683	132 0	3 6	.....	24 8	.....	9 3¾	86 9[1]	20 5 0	572	74 0	40 0
1684	131 2	3 6	.....	23 4	8 0	10 7	88 2[1]	25 0 0	598	70 0	40 0
1685	129 3	3 6	26 2	28 9	7 5	10 7½	90 0[1]	.....	564	92 0	40 5
1686	129 11	3 6	19 10	34 8	9 1	9 1½	79 7[1]	14 10 0	566	104 0	40 0
1687	128 0	3 6	.....	35 0	.....	10 7¼	88 9[1]	16 5 0	561	103 0	54 0
1688	140 6	3 6	19 9	37 4	9 6	10 7	87 3[1]	11 10 0	615	112 0	40 0

[1] Brawns.

	Oxen, highest price.	Beef, stone of 14 lbs., King's College.	Calves, highest price.	Sheep, highest price.	Lambs, highest price.	Sheep, Average.	Boars, highest price.	Horses, saddle or coach, highest price.	Weight of Oxen.	Election Ram.	Weight of Sheep.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	£ s. d.	lbs.	lbs. ozs.	lbs. ozs.
1689	.....	3 6	21 9	29 3	10 2	10 7	81 $0\frac{1}{2}$ [1]	17 13 6	.....	108 0	40 0
1690	.....	3 3	.....	26 6	.....	9 7	90 6 [1]	14 5 0	.....	106 0	42 0
1691	.....	3 0	18 4	25 6	8 8	9 $10\frac{1}{2}$	86 9 [1]	15 10 0	.....	102 0	40 0
1692	.....	3 3	.....	37 4	.....	10 6	88 0 [1]	16 0 0	.....	128 0	40 0
1693	.....	3 6	.....	36 9	2 6	11 1	96 9 [1]	19 0 0	.....	126 0	40 0
1694	.....	3 6	.....	36 9	.....	10 7	94 3 [1]	15 1 3	.....	126 0	40 0
1695	.....	3 6	.....	40 0	.....	11 $0\frac{1}{2}$	106 9 [1]	5 0 0	.....	128 0	39 12
1696	166 8	3 6	.....	36 2	.....	.....	98 4 [1]	.....	.....	124 0	.....
1697	.....	3 6	.....	33 3	.....	.....	99 6 [1]	14 5 0	.....	114 0	.....
1698	.....	3 6	.....	43 $1\frac{1}{2}$	.....	.....	80 0 [1]	21 10 0	.....	138 0	.....
1699	.....	3 6	.....	36 10	.....	9 7	95 0 [1]	21 10 0	.....	136 0	40 $1\frac{1}{2}$
1700	.....	3 6	.....	30 4	.....	12 0	110 0 [1]	20 0 0	.....	112 0	.....
1701	.....	3 6	.....	37 11	.....	.....	110 0 [1]	.....	.....	140 0	.....
1702	.....	3 6	.....	30 0	.....	12 0	.....	17 4 0	.....	120 0	.....

[1] Brawns.

Decennial Averages.

	Oxen, highest price.	Beef, King's Coll., Cambridge.	Calves, highest price.	Sheep, highest price.	Lambs, highest price.	Sheep, average.	Boars, highest price.	Horses, saddle or coach, highest price.
	s. *d.*	*s.* *d.*	*d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*£* *s.* *d.*
1583—1592	87 1	1 10¼	11 5½	10 10¾	4 7½	7 9¾	28 2¾	11 4 10
1593—1602	103 10	2 3	14 5	13 11	4 4½	9 0½	38 7	11 18 0
1603—1612	129 8	2 5¼	14 11¼	13 8	6 2½	9 10	40 9½	11 16 2
1613—1622	138 5	2 7¾	15 2	16 2¾	7 2	11 8¼	48 3	13 2 0
1623—1632	146 7	2 6¾	16 5½	16 0¾	6 11½	11 10¼	55 1	15 1 8
1633—1642	189 8	2 11½	16 4	12 2	7 1¼	10 5½	62 2	13 18 10
1643—1652	144 9	3 5¾	13 0	18 7	7 8¾	11 8	46 8	17 9 2
1653—1662	143 5	3 5	12 8¼	19 2½	7 0	13 0¾	51 7½	16 5 10
1663—1672	137 6	3 6	13 3	18 9	10 0	11 4	61 6	14 16 0
1673—1682	139 0	3 6	12 0	25 0½	.....	9 9	77 3½	18 4 6
1683—1692	131 9	3 4¾	21 2	30 3	8 9¼	10 3	86 8	16 10 0
1693—1702	166 8	3 6	.....	36 1¼	.....	11 0½	99 0	16 12 8
Gen. Averages	138 2¼	2 11½	16 5¼	20 1	7 0	10 7¾	58 0	14 14 11¾

AVERAGE WEIGHTS, LBS. AVOIRDUPOIS.

	Ox.	Sheep.	Eton 'Ram.'
	lbs.	lbs. oz.	lbs. oz.
1593—1602	600	39 15½	.....
1603—1612	.....	36 12	.....
1613—1622	.....	42 11½	.....
1623—1632	602	39 0	.....
1633—1642	.....	.....	.....
1643—1652	568	38 12	.....
1653—1662	584	39 15	.....
1663—1672	602	41 14	82 8
1673—1682	585	39 12	82 6
1683—1692	579	41 10	100 0
1693—1702	.....	40 0	126 6
Gen. Averages	588½	40 0	97 13

WINCHESTER BEEF.—STONE OF 14 LBS.

	s.	*d.*		*s.*	*d.*		*s.*	*d.*		*s.*	*d.*
1644	3	1	1659	3	5¾	1674	3	2½	1689	3	2½
1645	2	10½	1660	3	6	1675	3	2½	1690	3	2½
1646	3	2	1661	3	5¾	1676	3	4	1691	3	2½
1647	3	5¾	1662	3	6	1677	3	3	1692	3	2½
1648	3	4	1663	3	6¾	1678	3	2½	1693	3	2½
1649	3	5½	1664	3	6½	1679	3	2½	1694	3	2½
1650	3	5½	1665	.....		1680	3	2½	1695	3	2½
1651	3	5½	1666	3	7	1681	3	2½	1696	3	2½
1652	3	6	1667	3	2¾	1682	3	2½	1697	3	2½
1653	3	2	1668	2	11	1683	3	2¾	1698	3	6
1654	3	2¾	1669	2	9¾	1684	3	0¾	1699	3	4½
1655	3	0¾	1670	2	9¾	1685	3	2½	1700	3	5½
1656	3	1½	1671	2	9¾	1686	3	2½			
1657	3	3½	1672	2	9	1687	3	2½			
1658	3	6	1673	2	4½	1688	3	2½			

THEYDON GERNON SERIES.—STONE OF 8 LBS.

	s.	d.		s.	d.		s.	d.		s.	d.
1601	1	7½	1606	1	1¼	1611	1	5¼	1616	1	5
1602	1	5¼	1607	1	4¾	1612	1	6½	1617	1	5¾
1603	1	3	1608	1	5¾	1613	1	4½	1618	1	5
1604	1	4¾	1609	1	6	1614	1	7½	1619	1	6¼
1605	1	4¾	1610	1	6¾	1615	1	8½	1620	1	6

YOUNG'S PRICES.

	s.	d.		s.	d.		s.	d.		s.	d.
1683	2	4	1688	2	6¾	1693	2	9	1698	3	3
1684	2	6	1689	2	7½	1694	2	11	1699	2	8½
1685	2	6	1690	2	6½	1695	3	3	1700	3	3
1686	2	1½	1691	2	5	1696	3	1¾	1701	2	9¾
1687	2	6	1692	2	3¾	1697	3	1½	1702	3	5

DECENNIAL AVERAGES.

WINCHESTER. 14 lb. stone.			THEYDON GERNON. 8 lb. stone.			YOUNG'S. 8 lb. stone.		
	s.	d.		s.	d.		s.	d.
1644—1652	3	4¾	1601—1610	1	5	1683—1692	2	5½
1653—1662	3	4	1611—1620	1	6	1693—1702	3	0¾
1663—1672	3	1¼						
1673—1682	3	1½						
1683—1692	3	0¼						
1693—1700	3	3½						
Gen. Average	3	2						

CHAPTER XII.

DAIRY PRODUCE, EGGS AND POULTRY.

POULTRY and game, in so far as the accounts supply me with information, have been noted in the prices of stock. Butter and cream, eggs and cheese are printed in a separate table. It will be convenient to take dairy produce first, and to make such comments on poultry and game, as the nature of the evidence suggests, a little further on. Most of the information I have comes from the Commons books of Cambridge and Winchester, and from the private accounts of individuals.

BUTTER. The register of the price of butter fails me for twenty years out of the whole period, twelve of those years being between 1658 and 1670. I have therefore fuller information than I had for the 182 years dealt with in my third and fourth volumes. Butter is generally sold by the pound, but in the tables to which the entries are reduced I have adopted a hypothetical dozen pounds, in order to avoid fractions. Similarly in rare cases, I have dealt with the pint, an Eastern Counties measure, as though it were a pound, have reduced the firkin of 56 lbs. to the same standard, and the clove of eight pounds which is also found. There are, also in the Eastern Counties, a few entries of butter by the yard, a custom which I believe still survives.

The course of the price of butter, as corrected by taking decennial averages, illustrates the facts which have been exhibited in other and similar cases. Butter gradually becomes

dearer during the first thirty years, it is very dear as compared with previous experience in the decade 1643–52, is cheaper again during the next thirty years, and is dearer than ever in the last decade. As is usually the case too, the price is greatly exalted during the two years 1648 and 1649. Prices however in the five years 1697–1701 are all taken from London purchases, where we may expect that the rate will be higher than it is in the country, especially in places like Cambridge and Winchester, where natural pasture is abundant.

We may reasonably conclude that dear years for butter were characterised by drought, especially when the record comes from localities where the produce would generally be cheap. Thus in 1629 the average price is 6*s.* 5¾*d.*, all the information coming from Cambridge, and the price being 1*s.* 3¼*d.* above the average of the decade in which it occurs. Again, in the decade 1643–52 there are five continuous dear years, the prices being 6*s.* 5½*d.*, 6*s.* 10½*d.*, 7*s.* 5¼*d.*, 7*s.* 2¼*d.*, and 6*s.* 5*d.* the dozen pounds. There however are the five dear years, 1646–50, the scarcity of which has been so often recognised. In these years the evidence also comes exclusively from Cambridge. The year 1675 is the dearest in the whole series, the price, 8*s.* 4*d.* the dozen, being derived from Winchester. Here the College buys cheese at 28*s.* the cwt. regularly, and gives the weight, the residual cost of the item indicating, as the weight is given, what the cost of butter is. In this year the price of corn is rather low, and the exalted price must be due to drought. The only other abnormally high-priced years are 1684 and 1685, when the rates, in both cases derived from Winchester, are 6*s.* 7½*d.* and 6*s.* 10¼*d.* Between 1691–1696, inclusive, Houghton's prices have been reckoned in the averages.

Where the year is divided into quarters in the original account, or dates of purchases are given, butter is much dearer, sometimes as much as fifty per cent., in winter and early spring than it is in the summer. Thus, for example,

at Wormleighton in 1621–22 the price in April is 5*s.* 3*d.* the dozen, in June 3*s.* 9*d.* At Winchester in 1643 it is 7*s.* 5¼*d.* in March or April, and sinks to 4*s.* 6*d.* in June. In 1686 it is 7*s.* 4¾*d.* at Lady Day, and 4*s.* 9*d.* at Midsummer. So again in 1697, butter in London is 9*s.* 9*d.* the dozen in April, and 6*s.* 6*d.* in July. There is to be sure in our time a marked difference between the summer and winter price of this article, but in the sixteenth and seventeenth centuries while the principal source of dairy fodder in winter was hay, the contrast of price was more conspicuous.

Notwithstanding the fact that butter is dearer from September to April than it is from April to September, the largest purchases are made at Cambridge and Winchester in the first two quarters of the agricultural year. But it appears that butter was not much used, if used at all, for the purpose with which we are familiar, but chiefly for cookery, and especially for pastry. Now in the domestic life of the Colleges, both at Oxford and Cambridge, the period lying between S. Andrew's day, Nov. 29, and Candlemas, Feb. 2, was the time of feasts and gaudies. In not a few of those institutions, a more than ordinarily plenteous table was spread for the whole seventeen days between S. Thomas, Dec. 21, and the Epiphany, Jan. 6, as the outlay for spices, foreign fruit, as raisins, currants and figs, entered in the Commons books of King's College would testify. Before the days of rapid communication began,—by which I do not mean railways, but stage coaches—the long vacation was the only period of the year in which the Oxford and Cambridge student quitted his University. Adam Smith was an only child; but he resided in Oxford without a break from July 1740 till August 1746. Hence the College contained all its ordinary inmates at Midwinter, and when the periodical feasting time came round, these inmates spent most of their time in the College hall, round the great charcoal fire which was piled up high on the middle of the floor, and thoroughly enjoyed the unusual festivities.

All fats were dear, much dearer than meat, and remained so during the whole of this period. At the beginning of the period too suet is occasionally dearer than butter, and in earlier times constantly is. We shall see presently that candles are occasionally dearer than butter, even in the period before us. They constantly are in the fourteenth and fifteenth centuries. The cause is what I have often commented on, the absence of nourishing winter food. Now the cow might be made to yield milk, and with it butter, in the winter, though in scanty quantity. But the seventeenth century farmer rarely had the wherewithal to put flesh, and still less to put fat, on his stock; and I believe that in later as in earlier times every particle of spare fat, the skimmings of the pan as well as the trimmings of meat, was carefully preserved, the best for the kitchen, the coarser kinds, after having been refined as best they could be, for the home manufacture of the commoner candles.

Salted butter is not found, or is found very rarely, as in 1615, 1633, 1680, and 1689. Indeed the record of the two principal localities from which I have derived my information indicates that the price is of weekly produce. But barrelled butter must have been salted. Such for example are the firkins of 1584, 1587, and 1588, the tubs of 1594, the barrels of navy butter in 1601, the firkins of 1602, the barrel butter of 1608, the firkins again of 1627, 1633, 1634, 1635, 1636, 1637, and 1638, the kilderkins of 1644, and the large amount purchased for navy stores in the same year, and perhaps the London firkins in Houghton's table. If, as I believe was the case, the principal use of butter was in the better kinds of pastry and in cookery, the merits of the butter for such purposes would not be greatly injured by salting it.

The average price of the three firkins in the earlier time is 13*s.* 7¾*d.*, or nearly 3*s.* a dozen; of the seven entries by the same measure between 1627 and 1637 is 19*s.* 10½*d.*, or 4*s.* 3*d.* the dozen. In both the price is lower than that of the fresh-butter averages, taken on the whole year, but not always at

the cheapest time. The tubs of 1594 are probably the barrel of four firkins or two cwts., as the barrels of 1601, two of which are bought for navy stores, are. The butter bought for the navy in 1644, 26,000 lbs. at 4*s.* 6*d.* the dozen, is 9½*d.* the dozen cheaper than the average of three localities in the same year.

CREAM AND MILK. Up to 1645, entries of cream, generally from Cambridge and Winchester, are frequent, though not regular; beyond this date only two entries have been found, in 1684 and 1702. The price greatly varies. In the early years it is bought for the Oxford city feast, and the prices have been procured from the city archives. Now this feast was held in November, when cream would be at its dearest. It is also purchased regularly at Cambridge for the College feasts, but though often at an early period of the year, at half or less than half the price given in Oxford. It is purchased in Oxford and London in 1607 and 1608 at 2*s.* the gallon, double the price of the ordinary Cambridge rate. Again, it is bought at Winchester at 2*s.* 8*d.* the gallon, a still higher price. It is difficult to account for this discrepancy, except on the ground that the dealer levied a fancy price for the article in those localities. It is noteworthy too that the Winchester purchases are always made between Lady Day and Midsummer, the later of which is the cheapest of the year. It is however possible that the Winchester cream may have been thickened or drained of its milk. The last two entries of cream are, one probably in London or its neighbourhood, from Johnson's[1] accounts, he living at Deptford, and from London in 1702. Here the prices are 2*s.* and 4*s.* the gallon. On one occasion, 1686, the Winchester Fellows buy cream cheese. Entries of the price of cream occur for forty-seven years. Sometimes the price is given without the quantity. There are a few more among the Sundries, vol. vi. pp. 574–610.

[1] One of Johnson's daughters married Lord Lovelace, of Revolution notoriety. Johnson was a rich shipbuilder. His accounts and those of his son-in-law are in the British Museum.

Milk is only found seven times: once in London in 1593, when it is *6d.* and *5d.* the gallon; once in Theydon Gernon, at *5d.*; and the residue of the purchases are made by New College, Oxford, in 1643, 1644 and 1645, when the College gives *6d.* a gallon, again in 1649, when it gives *5d.*, and lastly in 1641, when it is *4d.* The price seems strangely high, but the record is worth preserving, as it seems to prove, either that persons kept cows and that these were only exceptional purchases, or that the use of milk as an article of diet or cookery was rare.

CHEESE. Entries of the price of cheese are very scanty in the early part of the period, but become more abundant towards its close. It is found in forty-four years. I conclude that it was rarely used by corporations and private families. The first entry is in 1593 in London.

The origin of the article is occasionally designated. I find Gloucester, Essex, Holland, Cheshire, Suffolk, and Weyhill, i.e. probably Wiltshire cheese. Besides these, D'Ewes buys morning milk cheese in 1636 and 1637, giving a fair price for it, though not nearly so much as he does for some other kinds, the origin of which he does not designate.

In 1643 and 1644, New College, Oxford, makes large purchases of cheese along with other provisions against the siege of the city, $7\frac{1}{2}$ cwts. in the first and 7 cwts. in the second year. But when the siege was over in 1645–6, it sells a large quantity, over four cwts. of its stock, and apparently at lower prices than it gave.

In 1680, a custom commences at New College, Oxford, of buying cheese for the bursar's table in the treasury, and the custom is continued, in so far as the College records have been preserved, till the end of the period. In these accounts, the number of the cheeses, the weight of each, and the price of each by the pound, is given. The greatest weight is 67 lbs., the least is $10\frac{1}{2}$ lbs. Sometimes the price varies within the year, sometimes it is uniform. The highest rate at which it is bought is in 1685, when ten cheeses weighing from 45 to

24 lbs. each are bought at 5*d.* a pound, one at 4¾*d.*, and another at 4*d.* 1685 was a very dear year for butter, and probably the weather was dry, and the grass short and scanty. The cheapest year of the New College series is 1687, when the price varied from 3¼*d.* to 3½*d.* a pound. The cheapest price of cheese which I have recorded is one of Lord Lovelace in 1689, when a large quantity is bought in Oxford at a penny per pound. In this year the New College price ranges from 3¼*d.* to 4*d.* During the dear years at the close of the seventeenth century the New College price is high, but not excessive.

In earlier times cheese is often bought by the wey of 224 lbs.,[1] in later by the half-wey, or hundred-weight. In 1644 the Parliament bought the large amount of 52,000 lbs. for the navy at 2*s.* 3*d.* the dozen. The highest-priced cheese which I have found is that bought by D'Ewes in 1636, at 116*s.* 4*d.* the wey, or over 6*d.* a pound. The cheapest which I have registered is that bought by Lord Lovelace. But I have found it at 30*s.* 6*d.* the wey, or 15*s.* 3*d.* the cwt. Scanty however as the accounts are for the early period, I think it probable that the averages given for ten of the decades do not give any wide interpretation of prices, but represent the facts with fair accuracy.

EGGS. The price of eggs has been found with few intervals for the first sixty-three years of the period, but is almost wanting for the residue, only one entry after 1645 having been discovered. Eggs in large quantities are purchased for the kitchen at King's College and Winchester, though they do not appear in the few later accounts of these corporations which have been discovered. They are also bought, and at very low prices, in the north of England, the cheapness of this produce being proof of the almost universal practice of keeping poultry. Thus in 1585 at Kirkby Stephen a large amount is bought in March and April at 1*s.* a hundred. In London, on the other hand, and at an early period, eggs are

[1] So defined by 9 Hen. VI. cap. 8.

comparatively dear. Like butter too, they vary in price with the season, eggs bought in December being often double the price of those bought in April. They are, like cream, purchased for feasts. At Winchester in the spring they are bought largely for making 'caudle,' this beverage being provided occasionally for the servants. I think it probable that the latest given price is about the average of this and the residue of the period. It is taken from a published price of provisions issued by the authority of the Oxford Vice-Chancellor, and in accordance with the universal custom of the time. In August, 1677–8, Lord Lovelace buys turkeys' eggs (the only entrance I have found of this produce) for breeding purposes.

POULTRY. The universal practice of keeping poultry, even by the cottagers, is a reason why the entries of poultry are so few. I am able indeed to give decennial averages of capons and pullets or hens; but my accounts of this kind of produce show a serious gap, speaking generally, during the reign of Charles II. Enough has however been collected to indicate what maximum and general prices were during the period.

Capons have been found for fifty-four years, and are occasionally purchased in considerable numbers, for College and other feasts. Among these accounts are the details of a feast provided for the members of the Star Chamber in January 1594–5, and again in the February following. For the entertainment of these dignified persons the best was of course provided, and consequently in this year the price is very high. The costs again of an official dinner in 1617–18 at Bath are to be found, in which, the banquet being of considerable magnitude, the prices are also high. Making allowance for three exceptional entries, the price of capons appears to be a little under *2s.* apiece during the first half, and a little over *2s. 6d.* during the last half of the period. On the other hand, at Winchester, where poultry is largely consumed, the price of capons is lower than elsewhere. Unless however one is informed as to the breed and feeding of poultry (we know that in the early sixteenth century fowls were crammed), it is not

possible to account for local differences of price. For example, in 1641 the Cambridge capons cost a little over 2*s.* 2*d.*, while those bought at Winchester, 22 in number, cost 1*s.* 4¾*d.* on an average. The average price of capons for the whole period, the highest entries being taken, is 2*s.* 1¾*d.*

I have also taken the highest prices of 'hens' or 'pullets' from the accounts and constructed decennial averages for them. These entries are more difficult of interpretation than those of capons, owing to the uncertainty there is as to the growth and condition of the birds. They are found for sixty years. The highest price in the earlier period is a purchase made of two in 1616 by the Archers, who owned Theydon Gernon, at 1*s.* 9*d.* each, under the name of pullets. But in the four years 1652–5 they are quoted at Mounthall, at prices which are sometimes higher than those of the Cambridge capons, under the name of 'fowls,' and are possibly capons also, as the latter name is not found in the Mounthall accounts. The general average of the highest-priced entries is 1*s.* 2½*d.*

There are also numerous entries of 'chickens,' especially in the early period, sixty-one years being represented. Towards the latter part of the period the price of this kind of poultry is greatly raised, though only on a few entries, in which this name of produce was probably not very clearly distinguished from that of the dearer kind. The average from the sixty entries is 6*d.*

There are sixty-five entries of the price of geese. These favourite articles of diet among our forefathers are distinguished as ordinary geese, green geese, goslings, and sometimes as fat geese. I have omitted from my list, some goslings, some geese evidently bought for stock, and otherwise plainly not in condition for the table. But there are still some puzzling discrepancies of price. Thus in 1592 the city of Oxford buys 26 geese for its November feast, probably the 11th, S. Martin's Day[1], in whose name the city church is

[1] After the Gunpowder Plot many of these November feasts were kept on the 5th. During Elizabeth's life, and indeed afterwards, these feasts were often held on the day of her accession, the 17th.

consecrated. But in 1593 a goose in London is bought in September at 2*s.* 6*d.*, and the next year in December at 2*s.* in the same place, where it is also 2*s.* 4*d.* in 1695. In 1601, the Archers of Theydon Gernon pay 2*s.* 8*d.*, in 1607 3*s.*, the Oxford city caterer buying them at 1*s.* 3¼*d.* in the same year. In 1613 a 'green goose' costs 3*s.* 9*d.* at Theydon Gernon in April. In 1653 the owner of Mounthall pays 4*s.* in December, and in 1654 the same person buys them at 1*s.* in May. And here it may be noted that all kinds of poultry, and indeed of game, are exceedingly cheap in the north of England, and especially geese. It is likely that in districts where extensive commons existed, geese would be more generally kept than any other kind of poultry, as they can get into fair condition on the waste, can be easily seen to, and can be readily and cheaply cooped and fatted. The average price of the sixty-three years is 2*s.* 4½*d.*

Ducks are found for thirty-eight years, scattered over the whole period, and I have ventured, as they occur without any material alteration in price till the end of the period for nine out of the twelve decades, to give averages. It is strange that this kind of poultry was not more frequently sold, and I have noticed in previous periods that ducks are rare as compared with fowls. I am disposed to believe that the practice of keeping ducks was not common, because the country swarmed with the wild kinds, which might have enticed away the reclaimed or tame birds. The fact at any rate remains that ducks are scantily purchased. The average for the whole period is 8½*d.* In 1693 a large quantity is purchased in Oxford for a feast at very high prices, the highest being 1*s.* 8*d.*; and in 1698 they are bought numerously in London at prices varying from 1*s.* 4*d.* to 2*s.* These were probably birds carefully fatted for table.

Tame pigeons, represented in fifty-seven years of these accounts, are generally purchased by the dozen. The keeping of dovecots was a franchise rigorously protected by the law, and a great nuisance to the farmer, whose crops they plun-

dered incessantly. Beyond question most of the purchasers of pigeons had dovecots themselves. Thus I have frequently found purchases of salt stones for pigeon-houses, and sales of pigeons' dung as a very valuable manure, in the King's College accounts. But many of these pigeons are bought by this College for its feasts. Wild pigeons are sometimes mentioned. The average price by the dozen is 2*s.* 2¾*d.*, and the price rises to nearly this average after the first decade.

Larks, bought in great numbers by the dozen, appear in thirty-three years. They were, no doubt, caught in clap-nets by the country folk on the commons. They are occasionally much above the average. In 1594 the purveyors for the Star Chamber feast give 1*s.* 6*d.* a dozen for them. In the next year 14½ dozen are bought in the North at 2½*d.* Again, in 1698 nine dozen are bought at prices varying from 10*d.* to 1*s.* 6*d.* the dozen. The average of the whole entries is 8*d.*

Turkeys are found in twenty-five years, and, occasionally, in some number, for the year in which they are quoted. From the comparative rarity of this kind of poultry, I conclude that they were not commonly bred or reared. The highest price which they reach is, as in other cases, at the Star Chamber dinner, when they cost (nine of them) from 5*s.* to 6*s.* each. They occur for the first time at Kirkby Stephen in Westmorland, where the highest price is 2*s.* 8*d.*, the lowest 2*s.* In 1672 I find one bought at 5*s.*, and in 1698 from 4*s.* 6*d.* (hens) to 5*s.* 6*d.* (cocks). The average however is 2*s.* 11¼*d.*

There are seven entries of the price of swans and cygnets, at prices varying from 6*s.* 6*d.* to 12*s.* 6*d.*, the average being 7*s.* 5*d.* The fatted cygnet was a favourite dish, and whenever the owners of mansions or corporations had water on or near their property, they kept these birds for the table as well as for ornament, nicking them in order that they might identify their property. The right of keeping swans was regulated by the sumptuary laws.

GAME AND RABBITS. Game was protected, and a quali-

fication required for the pursuit of game by divers Acts of Parliament passed in the early part of the seventeenth century[1]. I presume that these Acts, being practically modifications of the old forest laws, and apparently intended to mitigate their severity, were to some extent effectual, at least as regards deer and hares, for I have never found the former of these in my accounts, except as presents, and the latter not at all. But other kinds of game are purchased, not indeed constantly, because accounts fail me, but when the fact is noted, in quantities large enough to indicate demand, and a supply which could not have come from any but professional fowlers or country folk. In point of fact, the common practice is hinted at in the preamble of the earliest game Acts, that the object of legislation was to prevent 'idleness and dissipation in husbandmen, artificers, and others of lower rank.' Now I have found in these accounts, pheasants, partridges, woodcock, snipe, and numbers of what are commonly called wild-fowl at the present time, besides birds which are not ordinarily in our days found in a poulterer or game-dealer's list.

I find seven entries of the price of pheasants. One is at a very high rate, 8*s.*, and is found in the Star Chamber feast; others, in 1691, are purchased at Oxford for college feasts there, the price in September and December being given at 2*s.* 6*d.* But without these exceptional cases the price is a little over 4*s.*, a rate which does not indicate scarcity.

There are sixteen years in which partridges are priced. Three of these are on occasions of great feasts, in 1594 for the Star Chamber, in 1617 at a banquet at Bath, and in 1691 at Oxford. In 1654 the owner of Mounthall buys partridges in January at 1*s.* The most frequent purchases are at Winchester, where they are frequently found in the few manciples' books which survive. It is noteworthy that they are bought by public or almost public bodies. The average price, including these four entries is $8\frac{3}{4}d.$, without them $6\frac{1}{4}d.$

[1] 1 Jac. I. cap. 27; 3 Jac. I. cap. 13; 7 Jac. I. cap. 11.

I have found woodcocks in twenty-three years. The price of no game varies so much, both in the same year and from year to year. In 1587 it is bought at *6d.*, in 1588 at *2d.* In 1599 it varies in different localities from *2d.* to *8d.* The known habits of this bird account for much. Its appearance is capricious at all times, and even where it is found, its scarcity or frequency depends on the character of the winter. It is cheapest by far in the north of England. But in 1591 it costs *11d.* at Gawthorp in Lancashire, the price being generally *2d.*, while it is *2½d.* in Worksop. The Star Chamber gives a high price, *1s. 2d.* These birds are dear in 1613, 1614, 1691, and 1692, the last being Oxford prices. It is never purchased of course except during the winter months. The general average from all the entries, cheap and dear alike, is a fraction above *8d.*

Snipes, sometimes called snytes, are generally purchased by the dozen. I have found them for fifteen years. They also vary much in price. In 1591 they are bought at *7¾d.* the dozen, in 1594 at *4s.* In 1617, the Bath feast, which is held in July, buys twelve dozen 'snipe' at *3s. 8½d.* Unless there is an error in the name, it is difficult to see where they came from in July. In 1692, the Oxford feast buys three at the high price of *8d.* each. There is nothing to denote whether the bird is the jack or the great snipe. The average from all the entries, high and low included, is nearly *2s. 5¼d.* the dozen.

Several different kinds of plovers are quoted in the accounts. Some are merely named thus. But there are also green plovers, grey plovers, right plovers, stone plovers, and bastard plovers. It is said also that stints, found early in the period, are a kind of plovers. Plovers by this name only occur in thirteen years, and range in price from the Star Chamber purchase at *8s.* a dozen to *2s.* in the latest entry. The average price of the whole number of entries is *4s.* Right plovers occur three times, always at *6s.* a dozen. Bastard plovers twice, at an average of *3s. 6d.* a dozen. Green plovers

twice, at an average of 3*s.* 11*d.* Grey plovers are found in one year only, at 7*s.* a dozen; and stone plovers also once, at 1*s.* 2*d.* each. Stints are found twice in the early period, at 1*s.* 2½*d.* the dozen. Pewits are also bought, at 3*s.* 4*d.* the dozen.

Fieldfares are found six times, once in 1602, at the great price of 7*s.* a dozen, the average of the other five entries being 1*s.* 2*d.* the dozen. Blackbirds are bought at 1*s.* 6*d.* the dozen; redshanks, in 1599 and 1600, at 8*d.* and 6*d.* Quails are found twice, in 1585 and 1621, at 8*s.* in the first year, and 7*s.* 6*d.* in the other, by the dozen. Curlews are quoted at 3*s.* each in 1694; herons at 3*s.* 4*d.* in 1599; gulls, hardly I should think the modern bird, in 1599 and 1600, at 1*s.* 4*d.* and 1*s.* 8*d.* each; and bitterns in 1600 at 2*s.* Wild geese are bought in 1585 at 6*d.*; and brand geese in 1642 and 1688 at 1*s.* 4*d.* and 1*s.* 6*d.* Besides these, two entries are found in the year 1622 of haddicocks, a name I cannot find in the glossaries. They are bought at 4*s.* and 5*s.* 10*d.* the dozen.

Entries of teal are found in nine years. They are generally bought by the dozen, and up to 1640 the average is 3*s.* 6*d.* In 1698 they are bought at two prices, 9*d.* and 1*s.* 6*d.* each, these purchases being made in London. There are also entries of widgeon for nine years, the average of the whole being 7¾*d.* each. If 'wild fowl' and wild ducks are to be identified as the same birds, they are found in seven years. But in one year they are bought in Oxford at a very high price, 2*s.* each, the average of the other five entries being 9¾*d.* There are two entries of dottrells by the dozen in the early years, at an average of 3*s.* 1½*d.* Lastly, in 1585 I find a peacock bought at 5*s.*

Had the private accounts of such persons as Lords Spencer, North, and Pembroke been preserved more largely than they have been, I should no doubt have found more abundant evidence of these purchases. This would also have been the case if the manciple's books at Winchester had largely survived.

But of the latter only two have been preserved, each over a few years only; and of the former, particularly those of Lord Spencer, from which much of this information comes, only a few are in the British Museum. But I think that enough has been stated to show that some persons made fowling a calling and a means of livelihood, or at least a bye industry, and that what we now call game was freely captured, hawked about, and sold, being purchased by persons who knew the law, and apparently did not consider that it was violated.

POULTRY AND DAIRY PRODUCE.

	Capons, highest price.	Geese, highest price.	Hens or Pullets, highest price.	Chickens, highest price.	Pigeons, dozen.	Larks, dozen.	Rabbits, couple.	Butter, doz. lbs.	Cheese, doz. lbs.	Eggs, 100.	Cream, gallon.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1583	1 7	1 0	0 8	0 6	1 2	0 6	1 0	3 1¾	.....	2 4	1 10
1584	1 6	0 8¼	.....	0 6	1 0	0 5	0 8	3 6½	.....	.....	0 10
1585	1 8½	1 2	0 4	0 2½	1 6	0 6	0 9	3 5½	.....	2 0	1 9½
1586	1 2¼	1 0	0 10	0 4	1 0	0 7	0 9	4 1¾	.....	.....	.....
1587	1 7	1 4	.....	0 4½	1 0	0 6¾	1 0	4 0¾	.....	3 10	0 10
1588	1 0	1 0	0 5	0 4	1 0	0 6	0 8	3 9¾	.....	2 0	.....
1589	1 2	1 0	0 6	0 4	1 0	0 6	1 0	4 0½	.....	2 6	0 10
1590	0 8	.....	0 6¾	0 2	1 0	0 3	0 9	4 2	.....	2 8	0 10½
1591	1 3¾	1 0½	0 4	0 3	1 6	0 2	0 10	3 8	.....	2 11	0 11
1592	0 10½	1 0½	.....	0 2	1 0	0 3	0 10	3 9	.....	3 5½	0 11
1593	2 0	2 6	.....	0 5¼	2 4	.....	0 6	4 0¾	2 0	2 3	0 11¼
1594	2 8	2 0	.....	0 5	2 4	1 6	1 4	4 9½	3 0	6 4	.....
1595	1 9½	2 4	1 0	.....	2 0	0 2½	0 8	4 7¼	.....	4 0	0 10
1596	3 0	1 2¼	.....	1 0	1 8	1 0	0 10½	4 1½	4 0	2 9¾	0 11
1597	.....	.....	.....	0 3	2 2	.....	0 8	4 8½	.....	3 10	0 10
1598	.....	.....	.....	.....	.....	.....	0 8	4 2	.....	4 0	1 0

	Capons, highest price.	Geese, highest price.	Hens or Pullets, highest price.	Chickens, highest price,	Pigeons, dozen.	Larks, dozen.	Rabbits, couple.	Butter, doz. lbs.	Cheese, doz. lbs.	Eggs, 100.	Cream, gallon.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1599	1 10	2 4	1 4	0 3	2 0	.....	0 9	4 5¼	.....	4 0	.....
1600	2 0	0 11	.....	0 3½	1 4	.....	0 8	4 8½	.....	4 0	0 10¼
1601	2 6	2 8	.....	0 3	1 6	.....	1 2	5 4¼	2 6	.....	.....
1602	2 0	1 6	0 8½	0 3¼	1 4¾	0 6	1 0	3 6	2 0	2 7½	1 6
1603	2 0	1 8	1 6	0 3¾	2 0	0 4	1 2	3 8¾	.....	2 4½	0 8
1604	1 11	2 6	1 6	0 6	1 6	.....	1 2	4 3	.....	.....	.....
1605	.....	2 0	0 10	0 4½	1 8	.....	.....	5 3	.....	3 10	.....
1606	.....	2 0	.....	.....	2 0	.....	.....	4 9	.....	3 0¼	.....
1607	1 8	3 0	1 3	0 4½	2 0	.....	1 2	5 4½	.....	3 0	2 0
1608	2 4	2 3	1 8	0 6	2 8	.....	1 4	5 5¼	4 0	3 11¼	2 0
1609	1 2¼	2 8	.....	0 4	.....	.....	1 4	5 1½	.....	2 3	1 2¼
1610	2 0	2 4	1 8	0 6	2 0	.....	1 4	.....	.....	.....	.....
1611	.....	2 4	0 6	0 6	2 0	.....	1 8	5 6¼	.....	3 7¼	1 1½
1612	.....	2 7	.....	0 6	.....	.....	1 6	5 6	.....	3 11¼	1 0
1613	.....	3 9	.....	0 6	2 0	.....	1 6	5 5¼	.....	3 2¾	1 0
1614	2 0	2 6	0 8	.....	2 1	.....	1 4	5 5¾	.....	4 0	1 5
1615	.....	2 7½	1 2	0 7½	2 8	.....	1 4	5 0½	.....	4 2	1 0
1616	.....	1 8	1 9	0 4	.....	.....	.....	5 2¼	.....	3 7	1 0

	Capons, highest price.	Geese, highest price.	Hens or Pullets, highest price.	Chickens, highest price.	Pigeons, dozen.	Larks, dozen.	Rabbits, couple.	Butter, doz. lbs.	Cheese, doz. lbs.	Eggs, 100.	Cream, gallon.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1617	3 0	1 0	1 4	0 6	3 4	.....	1 $2\frac{3}{4}$	5 $4\frac{1}{2}$	.....	3 8	1 0
1618	.....	2 8	1 4	0 6	1 6	.....	1 4	4 $10\frac{1}{2}$	.....	3 $2\frac{1}{2}$	1 0
1619	1 6	1 0	1 $0\frac{1}{2}$	0 $4\frac{1}{2}$	.....	.....	1 4	5 $2\frac{1}{4}$	.....	3 6	1 0
1620	.....	2 0	.....	0 5	2 4	.....	1 2	4 $11\frac{1}{2}$	.....	3 $1\frac{1}{4}$	1 0
1621	1 0	2 6	1 $3\frac{3}{4}$	0 $4\frac{1}{2}$	2 6	0 10	1 4	4 $9\frac{1}{2}$ [1]	.....	2 $2\frac{1}{2}$	1 0
1622	.....	2 8	0 $10\frac{3}{4}$	0 3	2 4	0 6	1 4	3 $8\frac{1}{4}$	.....	3 4	.....
1623	2 4	2 3	.....	.....	2 4	.....	1 4	4 10	.....	4 0	1 0
1624	.....	2 1	.....	.....	.....	.....	1 4	5 3	.....	3 0	1 0
1625	.....	.....	.....	.....	.....	.....	1 2	.....	.....	.....	.....
1626	.....	.....	0 10	0 4	.....	.....	0 10	5 $1\frac{3}{4}$ [2]	3 0	.....	.....
1627	2 2	.....	0 $9\frac{1}{4}$	0 $3\frac{1}{2}$	.....	.....	1 $2\frac{3}{4}$	4 $7\frac{1}{4}$	3 0	3 5	1 0
1628	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1629	2 2	.....	.....	.....	.....	.....	.....	6 $5\frac{3}{4}$	.....	3 2	1 0
1630	.....	.....	.....	0 $7\frac{1}{2}$	.....	.....	1 4	.....	.....	.....	.....
1631	2 $7\frac{1}{2}$	.....	.....	.....	.....	.....	.....	5 0	.....	4 1	1 0
1632	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1633	.....	.....	0 $10\frac{3}{4}$	0 4	.....	.....	.....	5 $6\frac{1}{2}$	2 $5\frac{3}{4}$	.....	.....
1634	2 6	.....	0 10	.....	.....	.....	1 0	5 9	.....	3 $8\frac{3}{4}$	1 0

[1] Cambridge, 5*s.* $2\frac{3}{4}$*d.*; Wormleighton, 4*s.* 4*d.*

[2] The 'pint' is treated as a pound.

	Capons, highest price.	Geese, highest price.	Hens or Pullets, highest price.	Chickens, highest price.	Pigeons, dozen.	Larks, dozen.	Rabbits, couple.	Butter, doz. lbs.	Cheese, doz. lbs.	Eggs, 100.	Cream, gallon.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1635	2 3½	.....	0 10	.....	.....	.....	.....	5 6½	3 4	3 7¾	1 0
1636	2 6	.....	0 10	.....	.....	.....	2 0	5 6¾	4 3	2 10	1 0
1637	.....	.....	.....	.....	.....	.....	.....	4 3½	3 0	.....	.....
1638	1 0	.....	0 11	0 6	.....	.....	1 1	5 4¼	2 3¼	.....	.....
1639	2 9	.....	0 11	.....	.....	.....	.....	5 8¼	.....	3 6	1 0½
1640	1 6	1 9	0 10¾	0 4½	2 0	.....	1 6½	5 6¼	.....	3 6	2 8
1641	1 6	2 0	0 11¼	0 8	1 10½	0 8	1 6½	5 5½	.....	3 4½	1 10
1642	1 5½	2 0½	0 11½	0 8	1 11¼	1 0	1 9	5 7¼	.....	3 2	1 10
1643	2 1	2 6	0 11¼	0 7	2 6	0 5	1 4½	5 8	2 9¾	3 2½	2 8
1644	2 6	2 6	1 0	0 6½	2 1	1 0	1 4	5 3¼	3 7½	2 7¼	2 8
1645	1 6½	3 0	1 0	0 6½	2 0	0 8	1 6	5 2	2 3	2 6½	2 0
1646	.....	.....	.....	.....	.....	.....	.....	6 5½	.....	.....	.....
1647	.....	.....	.....	.....	.....	.....	.....	6 10½	.....	.....	.....
1648	.....	.....	.....	.....	.....	1 0	.....	7 5¼	3 10	.....	.....
1649	.....	.....	.....	.....	.....	.....	2 0	7 2¼	.....	.....	.....
1650	.....	.....	1 2	.....	.....	.....	1 6	6 5	.....	.....	.....
1651	2 6	.....	.....	.....	.....	.....	.....	6 1	.....	.....	.....
1652	.....	2 6	2 0	0 8	.....	.....	.....	.....	.....	.....	.....

	Capons, highest price.	Geese, highest price.	Hens or Pullets, highest price.	Chickens, highest price.	Pigeons, dozen.	Larks, dozen.	Rabbits, couple.	Butter, doz. lbs.	Cheese, doz. lbs.	Eggs, 100.	Cream, gallon.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1653	2 9	4 0	2 8	0 8	2 6	.....	1 2	6 1½	.....	.....	.....
1654	2 4	1 0	2 6	0 8	4 0	.....	1 6	6 0	.....	.....	.....
1655	2 6	3 0	2 8	0 6	5 0	.....	.....	5 5¼	5 1	.....	.....
1656	.....	.....	0 9	.....	.....	.....	.....	6 0	.....	.....	.....
1657	.....	.....	.....	.....	.....	.....	.....	6 0	.....	.....	.....
1658	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1659	.....	1 9	0 6	0 5	.....	.....	.....	.....	.....	.....	.....
1660	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1661	.....	.....	.....	.....	.....	.....	.....	.....	4 0	.....	.....
1662	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1663	3 0	.....	1 2	.....	.....	.....	.....	6 5	.....	.....	.....
1664	3 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1665	.....	3 6	.....	.....	.....	.....	.....	.....	.....	.....	.....
1666	3 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1667	3 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1668	3 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1669	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1670	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

	Capons, highest price.	Geese, highest price.	Hens or Pullets, highest price.	Chickens, highest price.	Pigeons, dozen.	Larks, dozen.	Rabbits, couple.	Butter, doz. lbs.	Cheese, doz. lbs.	Eggs, 100.	Cream, gallon.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1671	.....	.....	.....	.....	.....	.....	.....	5 1¾	.....	.....	.....
1672	.....	.....	.....	.....	.....	.....	.....	5 6	3 0	.....	.....
1673	2 3	.....	2 0	.....	.....	.....	1 6	6 0	3 0	.....	.....
1674	3 0	4 0	1 6	.....	.....	.....	.....	5 4½	3 0	.....	.....
1675	.....	3 6	2 0	.....	.....	.....	.....	8 4	3 0	.....	.....
1676	.....	.....	.....	.....	.....	.....	.....	6 2	3 0	.....	.....
1677	.....	.....	.....	.....	.....	.....	.....	5 6½	3 6	.....	.....
1678	3 0	.....	.....	.....	.....	.....	.....	5 6½	3 0	.....	.....
1679	.....	.....	.....	.....	.....	.....	.....	5 6¼	2 5	3 4	.....
1680	3 0	.....	.....	.....	.....	.....	.....	.....	3 3¼	.....	.....
1681	.....	.....	.....	.....	.....	.....	.....	5 8½	3 6	.....	.....
1682	.....	.....	.....	.....	.....	.....	.....	5 4½	3 0	.....	.....
1683	.....	.....	.....	.....	.....	.....	.....	4 0	3 11	.....	.....
1684	1 0½	2 6	.....	0 6¾	2 0	.....	1 2	6 7½	4 9	.....	2 0
1685	1 4	2 6	1 0	0 8¼	1 9	0 6	1 6	6 10¼	4 10¾	.....	.....
1686	.....	2 6	0 7½	.....	1 8	0 6	1 6	5 11½	.....	.....	.....
1687	1 11½	2 1	0 9¼	0 5	1 10	1 0	1 5¼	5 7¾	3 3	.....	.....
1688	1 0	2 6	.....	0 7½	1 7	0 7	1 6	5 8	3 7½	.....	.....

	Capons, highest price.	Geese, highest price.	Hens or Pullets, highest price.	Chickens, highest price.	Pigeons, dozen.	Larks, dozen.	Rabbits, couple.	Butter, doz. lbs.	Cheese, doz. lbs.	Eggs, 100.	Cream, gallon.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1689	.....	2 6	0 7	.....	2 0	0 10	1 4	5 $8\frac{1}{2}$	3 4	.....	.....
1690	.....	2 2	0 9	0 $7\frac{1}{4}$	1 8	0 7	1 4	5 $9\frac{1}{4}$	3 $9\frac{3}{4}$	.....	.....
1691	2 6	2 6	.....	0 $7\frac{1}{4}$	2 6	1 8	2 0	5 8	3 9	.....	.....
1692	2 6	3 0	1 6	0 5	5 0	0 7	1 6	6 $1\frac{1}{4}$	4 0	.....	.....
1693	.....	2 8	0 $9\frac{1}{2}$	.....	2 $0\frac{3}{4}$	0 $7\frac{1}{4}$	1 6	6 $2\frac{1}{4}$	4 6	.....	.....
1694	.....	.....	.....	.....	.....	.....	.....	5 9	3 9	.....	.....
1695	.....	.....	.....	.....	.....	.....	.....	6 $4\frac{1}{2}$	3 $9\frac{3}{4}$	.....	.....
1696	.....	.....	.....	.....	.....	.....	.....	5 $4\frac{3}{4}$	4 0	.....	.....
1697	.....	.....	1 6	1 0	.....	.....	.....	7 3	4 9	.....	.....
1698	2 6	3 10	2 0	1 4	3 0	1 4	1 8	7 $9\frac{1}{4}$	4 7	.....	.....
1699	.....	.....	1 9	.....	.....	0 7	.....	8 3	4 9	.....	.....
1700	.....	.....	.....	.....	.....	.....	.....	7 0	.....	.....	.....
1701	.....	3 6	.....	.....	.....	.....	.....	8 0	.....	.....	.....
1702	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4 0

POULTRY AND GAME.—DECENNIAL AVERAGES.

	Capons, highest price.	Geese, highest price.	Hens, highest price.	Chickens.	Pigeons, dozen.	Larks, dozen.	Rabbits, couple.	Ducks.	Turkeys.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1583—1592	1 2	1 1½	0 6¼	0 3¾	1 1½	0 6	0 10	0 5¾	1 8½
1593—1602	1 11¾	1 11	1 0	0 3¾	1 9	0 8½	0 9	0 7¼	2 9½
1603—1612	1 10¼	2 4¼	1 3¼	0 4	1 11¾	0 4	1 4	0 6	2 1
1613—1622	1 10½	2 4	1 2¼	0 4¼	2 4	0 8	1 3¼	0 5¼	.....
1623—1632	2 4	2 2	0 9¾	0 5	2 4	.....	1 3½	.....	.....
1633—1642	1 11¼	1 11	0 10¾	0 5	1 11¼	0 10	1 5¾	0 8½	2 3
1643—1652	2 2	2 7¼	1 2½	0 6¾	2 2¼	0 9¼	1 6¼	0 8½	1 11
1653—1662	2 4¾	2 4¼	9½	0 6¾	2 10	.....	1 4	0 6	2 0¾
1663—1672	3 1¾	3 6	1 2	.....	.....	.....	.....	.....	5 0
1673—1682	3 0	3 9	1 3	1 2	.....	.....	1 6	1 6	2 6
1683—1692	1 8¾	2 5¾	0 10¾	0 6¾	2 2¼	0 9¼	1 5¾	0 7	3 9
1693—1702	2 6	3 4	1 6	1 2	2 6½	0 10	1 7	1 7	4 10
Gen. Average	2 1¾	2 6	1 2½	0 6¾	2 2¾	0 8	1 3½	0 9¼	2 10½

Dairy Produce, etc.—Decennial Averages.

	Butter, dozen lbs.	Cheese, dozen lbs.	Eggs, long 100.
	s. d.	*s. d.*	*s. d.*
1583–1592	3 $9\frac{1}{2}$	.....	2 9
1593–1602	4 $5\frac{1}{4}$	2 $8\frac{1}{4}$	3 $7\frac{3}{4}$
1603–1612	4 $10\frac{1}{2}$	4 0	3 3
1613–1622	5 0	.....	3 $4\frac{3}{4}$
1623–1632	5 $2\frac{1}{2}$	3 0	3 $6\frac{1}{2}$
1633–1642	5 $5\frac{1}{4}$	3 $0\frac{3}{4}$	2 9
1643–1652	6 $3\frac{1}{2}$	3 $1\frac{1}{2}$	.....
1653–1662	5 $10\frac{3}{4}$	4 $6\frac{1}{2}$	.....
1663–1672	5 $8\frac{1}{4}$	3 0	.....
1673–1682	5 $11\frac{1}{2}$	3 $0\frac{3}{4}$	3 4
1683–1692	5 $9\frac{3}{4}$	3 11	.....
1693–1702	6 $10\frac{3}{4}$	4 $0\frac{1}{4}$	.....
Gen. Average	5 $5\frac{1}{4}$	3 $5\frac{1}{4}$	3 3

CHAPTER XIII.

ON CANDLES, TALLOW, AND FUEL.

THROUGH the period before me, the record of the price of candles is unbroken. The purchases of the corporations are large. Only one of them (which manufactures its own lights, and therefore gives the entries of tallow or sevum) fails to supply me, in so far as the accounts are continuous, and the bursar gives weights as well as prices, with adequate information. The exception is Winchester.

There is hardly anything, in the whole range of commodities, in which the past and the present are more distinguished than in the cost of artificial light. The difference between the price of meat and the price of tallow or candles is conclusive as to the condition of the animal food which our ancestors consumed. Over the whole period, the price of a dozen pounds of beef at King's College, Cambridge, is 30·43*d.*, of candles 56·75*d.*, or about ·547 to 1. The quality too of this artificial light was very low. Rushlights were the commonest form of candle, and of these rushlights, those which had but a slight coating of tallow were ordinarily used. Such rushlights were often made by the household. Markham's yeoman, sitting by the firelight after the day's work is done, has, among other employments, to pick candle rushes, which the women dipped in tallow. The difference between 'wick' and cotton candles is frequently noted in the earlier purchases, the last entry of both kinds being in 1658. From Houghton's collections we learn that the manufacture of mould candles was an invention made at the conclusion of the seven-

teenth century. On one occasion in 1653, Corpus Christi College in Oxford buys double rush candles at a rather high price. This kind of rush candle remained in use, as I remember, till comparatively recent times. These double rush candles are dearer than the others.

Winchester College manufactured its own candles; at least I find none bought by this corporation, but in place large quantities of tallow and what the accounts call 'sevum melius.' The tallow is not what the accounts call hard or tried tallow, which appears to be beef suet, melted and purified, but mutton fat; and the 'sevum melius,' generally at a lower price than tallow, is, I conclude, the best part of the dripping or skimming got in roasting or boiling meat. It is purchased at a much lower price than the tallow used for navy stores, or the prices recorded by Houghton. Even here however it is dearer than beef. In course of time Winchester College ceases to buy tallow and contents itself with sevum.

Artificial light was dear, and of poor quality. This fact goes far to explain the very early habits of our forefathers, and in College life the use of the Common Hall, or after the Restoration the Common or Combination Room at Oxford and Cambridge. The Chapel services were held by daylight, for the cost of candles in the College Chapel ceases to be an important item after the Reformation, the wax tapers of the period before that epoch having been an act of worship and a source of profit. Most of the candles purchased were for the use of the Common Hall and the offices.

There are very few qualities of candles stated beyond wick and cotton. But sometimes I find white lights, a name which seems to indicate that the ordinary candle was not only coarse but of a bad colour, for white lights are dearer than others. I have also found London candles bought at Oxford, and Dutch lights bought at Oxford and Harting. But the price of these articles of comparatively distant origin is not higher than that which appears to be local produce, as I imagine most of that which the Colleges purchased was.

Candles are generally bought by the dozen pounds, a convenient form, and one to which I have reduced some purchases of a smaller quantity. But they are occasionally purchased by the stone, and in the early part of the period, especially by King's College, Cambridge, by the hundredweight. Occasionally, the accounts giving purchases by the hundredweight, also interpret the entry by the dozen. The custom of buying by the hundredweight appears to be peculiar to the Eastern Counties.

The price of candles, taken from an average out of all the entries of each year, shows a steady rise towards the conclusion of the period, and illustrates I think the course of agriculture, as far as stock-breeding is concerned, even more accurately than that of meat does, account being duly taken of the upward tendency of all prices during the century. This indeed I shall have to deal with in the latter part of this volume, when I have to compare collectively the prices of the several articles treated of separately in these chapters. I need only say here that the general level of prices reached at or about the middle of this century remained in great measure unchanged till the last quarter of the eighteenth century, at the time I mean in which Arthur Young published his Tours in England, and also his Political Arithmetic.

There is one particular however to which I must again invite my reader's attention. This is the great elevation of price which occurs in the five years 1646–50, a fact which continually appears, and which is exceedingly marked in the present article. For these five years, the average is nearly 6*s.* 2½*d.* the dozen. In two of these years, 1647–8 and 1649–50, the price is never paralleled during the whole period, though the two scarcity years, 1694–5 and 1695–6, come nearest to these prices.

During the next thirty years the price is on the average steady, at a little above 5*s.* the dozen. But in the decade 1683–1692 the price of candles, as is the case with most other articles which represent agricultural produce, falls, the period

being one of general abundance. It was I believe due to the general plenty which characterised the earlier part of the last quarter of the seventeenth century that the emphasis with which the scarcity in the last few years of the century was commented on must be ascribed. But the country had been far worse off in the middle of the century.

I have collected and averaged all the prices of tallow by the hundredweight which I have discovered in my researches. But of these, the averages for the first half of the period are of hard or tried tallow; those of the last half, of the purchases made at Winchester for candles. Most of the early entries are from the purchase of ship stores at Chatham, Rochester, Deptford and elsewhere, where tallow was largely employed for caulking the seams of ships. Both are called tallow, but the one is certainly of hard fats, the latter probably of soft. In the Winchester entries there are faint indications of the dear years 1646–50. Now during the first half of the period, the average price of a dozen pounds of hard tallow is 3*s.* 7¼*d.*, of candles 4*s.* 2¾*d.*

During the twelve years over which Houghton's collections extend, one of his regular entries in his weekly list of prices is that of 'tried tallow' by the hundredweight. I have found the expression elsewhere, as early as 1585. These purchases or market values are very instructive. The prices are highest at the ports, as a rule; and in ports like London, Plymouth and Pembroke, occur the greatest variations in price[1]. As in some places too, and especially at the ports, where the demand was accidental or capricious, one may find in the same year prices which differ more than those of any other article, e.g. from 56*s.* to 24*s.*

As regards tallow, the price of this commodity is highest in 1694–96, when the average is over 44*s.* I cannot but conclude that in these three years, which include the worst

[1] Here as elsewhere, and in other articles, the Pembroke figures are so persistently multiples or divisions of the mark, that I cannot but think that accounts at this port were kept in marks and the subdivisions of 6*s.* 8*d.*, 3*s.* 4*d.*, and 1*s.* 8*d.*

part of the scarcity at the end of the seventeenth century, the cost of the article points to extensive disease among cattle. Apart from demands for shipbuilding and repairing, the obvious use of tallow was a regular demand for candle-making, and it is, naturally, in such materials that one most easily detects short and abundant supply and poor prices. The average price for Houghton's twelve years is 37*s.* 9½*d.*, that of the first five decades in which evidence is forthcoming is 33*s.* 8½*d.*

FUEL. Information as to the price of fuel during the years comprised in these volumes is copious and instructive. It is so characteristic too, that in the tables subjoined to this volume I have broken up the evidence into certain localities. But the facts are of a different character from those which appear in previous volumes. In these, wood, faggots, firewood of different kinds and charcoal, form the bulk of the entries. In the present volumes sea-coal or pit-coal, and charcoal, are the most frequent, the practice of using the former of these two kinds of fuel having been adopted at different times. On the other hand, the consumption of some kinds of fuel, as for instance sedge, suddenly ceases at Cambridge, where in earlier times its use was universal and continuous. It will be convenient to deal with these different kinds of fuel separately.

SEA-COAL. Entries of sea-coal at King's College Cambridge, are unbroken during the whole period. It is always bought by the chaldron of 36 bushels, and in considerable quantities. It is I conclude as a rule Newcastle coal, though it is once described as Scotch. It was no doubt carried by sea to King's Lynn or Blakeney, and thence transferred to barges, and conveyed up the Ouse and Cam to the wharf, which it appears was close to Magdalene College, Cambridge. Besides those from the registers of King's College, there are some other entries from the Eastern Counties, which do not in the years during which they occur differ materially from those in the King's College accounts.

The price of sea-coal is greatly enhanced by any hindrance

of supply, and especially by bad weather. It is probable too that from time to time severe and prolonged frosts interfered with the inland transit, in case the College had not amply provided itself during settled weather and the summer. Hence there are certain occasions of exalted or greatly fluctuating prices, which serve to indicate the presence of storms or severe weather.

The first occasion on which such an abnormal price is indicated is in 1605. Here, fortunately, the account gives the purchases in each quarter of the year, these being taken from September to September. The price is higher than usual during the first quarter, and rises still more during the second, the College making small purchases for its wants. But there is a considerable drop in the third quarter, when a large stock is laid in. In 1607, again in the third quarter, a small quantity is bought at a very high rate.

But the most singular instance of exceptional and continuous dearness is in the five years 1640–1644. During part of this time, the coal-producing district, as far as Cambridge is concerned, was the Newcastle field, and this was now in the occupation of the Scottish army under Leslie. In the year 1640–1 the price is constantly high, rising in the second quarter to 33*s.* 4*d.* In the second year, 1641–2, the price is a little lower on the average. In 1642–3 it is still higher, and in 1643–4 it is higher than in any year during the whole period. The coal is described as Scotch, an indication, I conclude, that the trade from Newcastle was suspended. In the first quarter, a considerable quantity is bought at 46*s.* 8*d.*, and in the fourth, another purchase is made at 64*s.* In the first quarter of 1644–5 it is again at 46*s.* 8*d.*, but sinks to the ordinary price before the year is out. Curiously enough, there is an entrance of chaldrons of coal at Oxford in 1642, at 60*s.* I infer that this is sea-coal, for I have never found the chaldron used as a measure for charcoal. It is purchased by Corpus Christi, which College in 1644 buys a single chaldron at 50*s.*, as it had bought nine chaldrons similarly described at 38*s.* in 1641. But sea-

coal is not habitually bought at Oxford till 1657. I conclude that in these three years the part of the Thames between Burcot pier and Oxford, the navigation of which was always difficult and generally impossible, was sufficiently in flood for water carriage.

Towards the end of the period the price of coal at Cambridge creeps up, and in the last two years it is comparatively high, 30*s*., though it is never near the rate occasionally quoted in the years referred to above. I think it highly probable, that as time went on, and the use of the article became habitual and regular, the College watched the market, and laid in the store which it needed at a time when the supply was pretty regular and the price low. I do not see any evidence that they contracted for it.

Eton begins to purchase sea-coal in 1652, and gets it pretty regularly afterwards, sometimes using or buying no other fuel. In two years, 1671–2, it is very dear at Eton, but it will be remembered that these were years of war with the Dutch, when the coasting trade was likely to suffer, especially after the sea-fights with De Ruyter and Van Tromp. In one of these years, 1672, it is dear at Cambridge. In both these years it is, as might be expected, dear at Oxford, and for the same reason. In the last two years of the period it is also very dear at Eton. In general, unless very abnormal circumstances affect the market, coal at Eton is about 4*s*. to 5*s*. dearer by the chaldron than it is at Cambridge.

In 1610, ten chaldrons of coal are purchased by Dorothy Wadham, who was just beginning to build her College. It is possible that on exceptional occasions sea-coal was carried to Oxford. I have already adverted to those of a somewhat later date. In 1657, however, the use becomes frequent. Even after this date it is not bought by all the Colleges whose accounts I have examined. Most of them supplied themselves with firewood from their own neighbouring estates, all used charcoal largely, and one or two invariably. Towards the end of the period sea-coal is purchased in Oxford almost every year.

On three occasions, 1689, 1694 and 1696, Magdalen College buys Wedgebury coal by the load. The price of this article does not differ materially from that of coal by the chaldron, which is also purchased by the same society in the same years. This is I conclude inland coal from the forest of Dean, or the South Staffordshire pits, sent perhaps on speculation in fine weather to Oxford. The quantity purchased is small.

Winchester College generally burns charcoal, tall wood, and faggots. But between 1674 and 1700 it buys sea-coal thirteen times, both by the bushel and the chaldron, the latter, in 1674, being said to contain 32 bushels[1]. Sea-coal is dearer at Winchester than elsewhere. It was no doubt brought to Southampton and conveyed by land to the College, for I do not suppose that the river Itchin was navigable even to barges.

Between 1588 and 1613, a few entries of sea-coal by the chaldron have been found in the S. John's College accounts. The price does not differ from that registered at King's. There are also a few entries in the early period at Kirtling, the seat of Lord North. These are at about the price of the Cambridge entries. Similar to these are also an entry from L'Estrange's Lands in Norfolk, from Theydon Gernon, Mendham, and D'Ewes' accounts, all in the Eastern Counties.

There are a few entries from London, where the article is generally sold by the sack or chaldron. The price is a little higher as a rule than that at Cambridge in the same year. Once a price is given from Chatham. In 1643 coals are sold at Worcester by the ton. I suppose that this is sea or pit-coal. The price, 8*s.* 4*d.*, is not very high, but Worcester is near the coalfields.

For seven years Shuttleworth enters the price of cannel. It is by the load, and is very cheap. I have no means of knowing what the load is. The material I infer is from the Wigan district.

At Worksop, coal is bought by the load at the pit, and we are told that the pit was at Bolsover, near Derby. In 1595

[1] This measure may be the traditional custom of the College.

it is called Cutthorpe coal. At Wormleighton it is bought by the load and the buttrice, the two quantities, to judge by the price, being nearly the same. In 1621 Lord Spencer buys Bedworth coal by the hundred at from 9*d.* to 10½*d.* Bedworth is near Nuneaton.

Sometimes the cost of carriage is included in the price, especially at Cambridge. This means carriage from the wharf to the College coalyard. Occasionally the cost of carriage is specified.

CHARCOAL. This kind of fuel is bought by the load, the quarter and the sack, the number of sacks in the load being variable. It is bought as regularly in Cambridge as sea-coal is, though sometimes the register is deficient, King's College failing me four times in the 120 years, though on two of these occasions a double quantity is bought in the following year, a hint I think that the bargain was made one year and the payment the next. In Oxford, the quarter is also called the standard.

During the whole period the price of charcoal rises, till at last it is steady for forty years at Cambridge, at nearly double the price at which it stood in the first decade. So unchanged is the Cambridge price during these forty years that I cannot but conclude that it was a contract price. The rise at Eton is still more remarkable, as is also the progressive manner in which the price creeps up, till in the last thirty years it is regularly nearly three times as dear as it was at the beginning. It is not remarkable therefore that, the price of this fuel tending upwards so steadily, the use of other kinds of fuel, as at Cambridge turves and sea-coal, should have limited the consumption of that which was once so universally employed. I infer that at last charcoal was used only for the great open grate which I remember to have survived in S. John's College, Cambridge, in the middle of the hall, the fumes escaping by a louvre in the roof. At King's College, the yearly supply in the earlier years of the period is often eighty loads, towards the conclusion it often sinks to less than twenty.

The Cambridge accounts do not inform us how many bushels or sacks a load of charcoal held, but if we can trust the prices by the same year of this article by the load with prices by the bushel and sack, it would seem that the load (which I conclude was, as is nearly always the case, a ton in weight) contained about sixty bushels, or twenty sacks of three bushels each, this being the commonest account given of the charcoal sack. It was always I conclude delivered in sacks of coarse hempen stuff, to prevent breakage and waste. The rise in the price begins as usual with the seventh decade, and we shall hereafter see how this agrees with the facts in relation to the wages of labour at the same period.

Not only are the Oxford accounts more broken in every College than those of Cambridge are, but they are more scanty in detail. Besides, they use three measures in a most puzzling way, and none of them regularly—these being the load, the quarter, and the sack.

In the early part of the period, the load is used interruptedly, the quarter constantly, and the sack never. Later on, the load and the sack are used regularly, the quarter not at all. From the middle of the period the load is rarely seen, the quarter occasionally, the sack always. In the tables which follow this chapter, the entries of quarters with an asterisk are from Winchester.

The load I conclude as before to be a ton, and as it was in earlier times. I find that Oxford was much more near woodland than Cambridge was, and here it is likely that the calling of the collier was far more general. Of course the quarter is an intelligible quantity. But the sack is a puzzle. Sometimes, as in 1610, it is half a quarter, sometimes three bushels go to the sack. In 1610, fifteen quarters at Oxford make a load. In 1648, at New College, three sacks go to a quarter.

The price of charcoal at Eton is more marked than elsewhere. It is always bought by the load, and I conclude is supplied by contract. At first it is at 16*s*. In 1586, it is at

17*s.*; in 1596, at 18*s.*; in 1611, after a gap of four years in which there is no information, it is 19*s.*; in 1618 it rises to 20*s.*; in 1634 it is at 21*s.* Then, the accounts supplying but irregular information, and for a few years being lost, it fluctuates between 1636 and 1650 at an average of 23*s.* and 30*s.* Between 1652 and 1663 it varies from 37*s.* to 50*s.*, and thenceforward to the conclusion of the period, with the exception of one year (1664), when it is bought at 49*s.* 6*d.*, it is regularly at 50*s.*

Between 1644, with which the ordinary accounts of Winchester College commence, and 1701, the series being unbroken through this period, there are forty-two entries of charcoal, always by the quarter, and in fairly large quantities, though probably the College charred its own charcoal by its own workmen for the most part, and therefore the entries are most likely only of what it needed to supplement its own regular stock. The rate is very uniform, and the entries suggest to me that, when the price was abnormally high, the College did not purchase. Thus in 1664 the quarter is at 3*s.* 3½*d.*, and the College buys none for four years, when it gives 2*s.* 10¾*d.* Nor does it buy during the dear years, as they were called, at the end of the seventeenth century. The decennial averages show how uniform the price was :—

1644–1652 ...	2*s.* 4½*d.*	1673–1682 ...	2*s.* 7¼*d.*
1653–1662 ...	2*s.* 8½*d.*	1683–1692 ...	2*s.* 5¼*d.*
1663–1672 ...	2*s.* 11½*d.*	1693–1701 ...	2*s.* 7½*d.*

I should however be quite ready to anticipate that the price of charcoal would exhibit great variations in different parts of England, as the produce and the price of it must have greatly depended on the abundance or scarcity of wood, and the number of those who engaged in the collier's calling.

Very few other localities besides Oxford, Cambridge, Winchester, and Eton supply prices of charcoal. The probability is that most country gentlemen got all the fuel they used from their own woods, and rarely purchased from other sources. There are however a few early entries from London,

one from Theydon Gernon, one from Dering's Accounts, and two from Caryl's estate in Sussex. One entry from Tavistock, in 1602, gives a purchase of four weys of 'coal' at 24*s*. I cannot interpret what this measure can be, or whether it is charcoal or sea-coal; the ordinary weight of a wey (224 lbs.) is out of the question at the price. It must I suspect mean a ton in this entry.

SEDGE AND TURVES. These are bought, the former exclusively at Cambridge, the latter almost always. Sedge is bought by the hundred, I conclude the hundred bundles; turf, by the thousand. In the fifteenth, and the first three quarters of the sixteenth century, sedge was regularly purchased at Cambridge, and it still was till the middle of the seventeenth, when, with a solitary exception in 1654, it entirely disappears from the accounts. On enquiring at Cambridge, I found that there was no memory there of its ever having been used as fuel. I conclude that when it was purchased, it was for the oven.

Sedge rises in price till the middle of the seventeenth century. In the early part of the period, it is dear in the two years 1594 and 1595, in 1614 and 1615, and in 1621 and 1629. During the scarcity of the decade 1643–1652 it is very dear, and perhaps this great exaltation of price may have led to its disuse. The burning reed which is once or twice bought at Chatham Dock for navy stores may have been something like the Cambridge sedge.

Turf is found scantily in the earlier part of the period, but almost regularly during the seventeenth century, being frequently bought by King's College in very large quantities. It rises greatly in price at and after the middle of the century, but falls again towards the close. I conclude that the turf of the accounts is peat dug from the fens and dried for fuel. It is sometimes distinguished by its origin, as Ramsey, Bolsover, Bottisham, and Burwell. There can be no doubt that the price of turf was greatly exalted by wet summers.

FIREWOOD AND FAGGOTS. It is quite clear from the

accounts of the several corporations, that most of them, when they could do so, kept in their own hands and cut down for their own consumption, brushwood, coppices, and even larger timber for their own needs. Thus Oriel College in Oxford regularly supplied itself from Stow-wood, between two and three miles distant from the city. The sale of wood is a very important item in the profits of an estate; and the writers on husbandry in the seventeenth century dwell on the importance of planting and preserving coppice wood, and urge that it should be cut only once in twenty years at soonest, pointing out how much an additional two or three years increases its market value.

Wood is generally bought by the load. It greatly varies in price, but manifestly rises through the seventeenth century. In some corporations, as at All Souls College, it is the principal fuel consumed, though here I cannot but infer that it is bought to supplement home stores. But even with all allowance made the annual entries exhibit great fluctuations, and some of these are all but inexplicable. Thus, for example, I cannot explain a load of wood which is inserted in the *focalia* account of King's College in 1628 at 33*s*., a price beyond parallel. This society does not often buy firewood. Towards the end of the period the price of firewood at Oxford is steady at 20*s*. the load, the purchaser being generally Magdalen College.

If the price of firewood is of difficult interpretation, that of faggots is more so. In some places and in the same years the price by the hundred is as high as that of others by the thousand. Faggots were no doubt of very different quality and size, as indeed is sometimes hinted, when one reads of faggots of the double band. I have however ventured on giving a list, though I do not think it would be to the purpose to draw a general or decennial average from them. There are also a few entries of billets by the thousand. For the table, the prices marked with the double asterisk are those of Winchester by the thousand.

This corporation also buys tall wood by the thousand, the

quantities purchased being very large. Between 1644 and 1701, forty-five entries of tall wood are given in the Winchester accounts. The following are the decennial averages of an article which is found as high as 26*s.* 9¾*d.* in 1650, and as low as 13*s.* 2¾*d.* in 1657 :—

1644–1652 ... 18*s.* 3*d.*	1573–1682 ... 21*s.* 10*d.*
1653–1662 ... 18*s.* 7*d.*	1683–1692 ... 21*s.* 6¼*d.*
1663–1672 ... 22*s.* 4*d.*	1693–1701 ... 22*s.* 8*d.*

There is little variation of importance indicated by these figures. I conclude that the tall wood is a waste product of timber felling.

It remains that I should say something of Houghton's coal entries, and of the few entries of underwood which I have made. It will be seen from the evidence of prices that the following coal-fields were being worked; those of Newcastle, of Durham, of Lancashire, of Derby, of the Midlands, especially near Leicester, perhaps that of the forest of Dean, of South Wales, and Somerset. There was also the coal-field of Southern Scotland, as is indicated not only by the actual entry of Scotch coal among the Cambridge purchasers, but by the price at Edinburgh, which Houghton gives. It does not appear that the South Wales and Somersetshire coals were carried round the Land's End. The price indicates that, as far as Falmouth, Newcastle produce was carried by coasters along the Eastern side of England, and down the Channel.

Houghton gives low prices for Penrith and Appleby, and I am informed by my friend Professor Prestwich that in all likelihood the supply for these towns came from the neighbourhood of Cockermouth, and was carried partly by sea and partly by an easy land route. It is said that superficial coal measures existed near both these places. With these corresponds the price at Carlisle. But the lowest price is at Derby, next those of the two towns above named, next those of Brecon, Berwick, and Newcastle-on-Tyne. The Newcastle prices are evidently affected by the demand from this locality and the comparatively easy distribution of the produce by the

sea route along the Eastern and Southern coasts of England. In one year Edinburgh prices are given, which I refer to, partly because Scotch coal is bought at Cambridge, partly because the entry indicates a cheap and near supply.

Naturally the largest fluctuations in the several years occur in the London market, where the use of Newcastle coal had now become habitual. Indeed, fifty years before the time at which Houghton's prices commence, it was conceived to be so important to London that, on the outbreak of the Civil War, the forces of the Parliament were ordered to anticipate those of the King in the occupation of Newcastle, in order to obviate a fuel famine in London. How high the price might rise in the City is indicated by the returns of 1694, for a short period in 1696, and in minor degree for a short time in 1702. In these cases I conclude that the temporary scarcity was due to adverse winds or losses by shipwreck.

Those places which were not only distant, but dependent on the facilities of inland water-carriage at a considerable distance from the mouth of the Thames, generally exhibit high prices. I refer to places near London, and still more to those at some distance up the stream, as Reading, Wallingford, and Oxford. At Cambridge the price in Houghton's list will be found to closely correspond with the prices paid by King's College, especially in the two years 1701 and 1702.

The Somersetshire coal-field which supplied North Wilts as well as Bristol and its neighbourhood appears to have been occasionally difficult of access. At least in 1702, Devizes suffers from a scarcity which begins in October 1702, and ends in September 1703, which is so severe that the price is nearly double the general average. The fact that the price is so high in Falmouth and Plymouth, cheap at Pembroke and along the Bristol Channel, seems to me to indicate that the South-western ports were not generally visited by vessels which could reach them by weathering the Land's End. I do not doubt, in short, that the difference between the price at Newcastle, and that of the Eastern, Southern and South-

western ports, is indirect evidence as to the cost of carriage from the Newcastle coal-fields to their several markets. I must not however neglect to notice that sometimes, as in 1697 and 1698, it does appear from the prices quoted that Falmouth at least got supplies from the Welsh or Somerset pits.

One perhaps also ought to take into account in these local prices, particularly in those places which have access to the sea, the possibility that coal was brought in ballast, or as a return cargo from a port of origin. In this manner I accounted in the earlier times (vol. i. 422–3) for the appearance of sea-coal at Southampton in the year 1378. There was we know an export duty on coal as early as the fifteenth century, and in the seventeenth, Charles granted, by what authority is not clear, a charge on these Newcastle coal dues to the son of Louisa Querouaille, whom he made Duke of Richmond.

It should also be remembered that prices of sea-borne coal are likely to be affected by the fact that this article was only occasionally consumed or in demand. In London it was plainly a necessity. In the Eastern Counties its use had become habitual. But it is not clear that it was so in localities where firewood was still plentiful and cheap, and such places might be as near London as Kingston, Richmond and Romford. I cannot argue therefore, in the absence of precise evidence as to the condition of the country, from the prices of sea-coal as confidently as I can from most other articles.

I have not thought it worth while, since so little can be inferred from the entries, to include such notices as I have found of the sale of underwood in the accounts. All Souls College however frequently sells its underwood on its Edgeware, Hendon, and Willesden coppices, between 1589 and 1636, at prices varying between 46*s.* 8*d.* and 71*s.* an acre, and at an average of 53*s.* 8*d.* In vol. iv. p. 369 comment has been made on the price given in the sixteenth century. But the produce from the acre is so uncertain that I do not feel justified in drawing any inferences from it.

In the subjoined tables will be found the prices of candles,

tallow, sea-coal by the chaldron at Cambridge, charcoal by the load at Cambridge, sedge by the hundred, turves by the thousand, sea-coal by the chaldron, and charcoal by the load at Eton, charcoal by the load, quarter and sack at Oxford, sea-coal by the chaldron at Oxford, firewood by the load, and faggots by the hundred and sometimes by the thousand.

There are also decennial averages of all these tables, except the last.

Candles, Tallow, and Fuel.

	Candles, doz. lbs.	Tallow, cwt.	Sea-coal, chaldron, Cambridge.	Charcoal, load, Cambridge.	Sedge, hundred.	Turf, thousand.	Sea-coal, chaldron, Eton.	Charcoal load, Eton.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1583–4	3 1¾	.....	11 0	17 6	3 5	2 6	.....	.....
1584–5	3 4	.....	13 4	17 6	3 8	2 0	.....	16 0
1585–6	3 5	24 0	12 7	20 0	3 8	.....	.....	.....
1586–7	3 2¼	.....	13 11	21 6	4 0	.....	.....	17 0
1587–8	3 5½	34 6	13 5¾	19 6	3 8	2 2½	.....	17 0
1588–9	3 11½	30 0	13 10¼	20 0	3 8	.....	.....	17 0
1589–90	3 10¾	29 0	14 4¾	21 0	3 8	.....	.....	17 0
1590–1	3 7½	32 8	12 7¾	20 0	3 8	.....	.....	17 0
1591–2	3 9½	.....	12 8	20 4	3 4¼	.....	.....	17 0
1592–3	3 7¼	.....	14 11½	20 6	3 10	.....	.....	17 0
1593–4	3 8¼	33 4	12 10	21 8	4 9¾	.....	.....	17 0
1594–5	3 0¾	30 0	13 5¾	19 11¼	7 0	.....	.....	17 0
1595–6	3 8½	.....	14 11	19 6	5 10¾	.....	.....	17 0
1596–7	3 7½	35 6½	13 3½	22 0	4 10¼	.....	.....	18 0
1597–8	4 0¾	37 4	13 3½	22 0	3 10	.....	.....	.....
1598–9	4 2¾	.....	13 5¾	22 0	4 1	.....	.....	18 0
1599–1600	4 1	37 0	12 6	20 0	4 0¾	.....	.....	18 0
1600–1	4 7½	39 1	14 2¼	19 9	3 10	.....	.....	18 0
1601–2	4 5	.....	14 10	22 0	3 8	.....	.....	18 0
1602–3	3 7	.....	15 3	20 0	3 8	.....	.....	18 0
1603–4	3 3½	.....	13 2¼	20 0	4 5	.....	.....	18 0
1604–5	4 4½	.....	13 2¾	22 6	3 8	.....	.....	18 0
1605–6	3 10¾	.....	17 5	22 0	4 7	.....	.....	18 0
1606–7	3 9½	.....	15 0¼	22 4	6 3½	.....	.....	18 0
1607–8	3 11¼	.....	18 9	24 0	6 9¾	.....	.....	.....
1608–9	4 0¼	.....	15 3	33 9½	5 6	4 2	.....	.....
1609–10	4 2½	.....	14 9	25 5	5 0	4 5¾	.....	.....
1610–1	4 10	.....	14 2¾	23 6	5 11	4 7	.....	.....
1611–2	4 1	.....	13 8	28 0	5 9¾	5 2½	.....	19 0
1612–3	4 3	.....	13 9	28 0	5 0	4 2	.....	19 0
1613–4	4 2	.....	15 2	26 8	5 0	3 4	.....	19 0
1614–5	4 8	.....	14 3¼	26 4	6 5¼	6 1¼	.....	19 0

Candles, Tallow, and Fuel.

Charcoal, load, Oxford.	Charcoal, quarter, Oxford.	Charcoal, sack.	Sea-coal, chaldron, Oxford.	Firewood, load.	Faggots, hundred.	
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	
23 0	1 4	.....	.....	7 2	16 0	1583–4
24 11½	1 6½	.....	.....	7 6	16 0	1584–5
23 0	1 5½	.....	.....	7 10	19 0	1585–6
23 0	1 6	.....	.....	7 9	16 0	1586–7
.....	1 4	.....	.....	7 3	16 0	1587–8
26 8	1 5	.....	.....	7 5	16 8	1588–9
.....	1 5	.....	.....	7 2½	.....	1589–90
24 0	1 4½	.....	.....	7 1½	10 2	1590–1
.....	1 5	.....	.....	8 0	.....	1591–2
26 8	1 5	.....	.....	8 1½	.....	1592–3
.....	1 5	.....	.....	8 3	12 6	1593–4
.....	1 7	.....	.....	9 2½	6 6	1594–5
26 0	1 7¼	.....	.....	8 6	.....	1595–6
28 0	1 7¼	.....	.....	9 7	.....	1596–7
.....	1 7¾	.....	.....	9 1	20 10	1597–8
.....	1 7	.....	.....	11 0	20 10	1598–9
.....	1 7¼	.....	.....	8 6	18 9	1599–1600
.....	1 7¼	.....	.....	8 0	16 8	1600–1
.....	1 7	.....	.....	.....	17 3½	1601–2
.....	1 7¼	.....	.....	13 4[2]	17 5½	1602–3
.....	1 7	.....	.....	.....	22 11	1603–4
.....	1 7¼	.....	.....	.....	16 4	1604–5
.....	1 6¾	.....	.....	8 6	25 0	1605–6
.....	1 8	.....	.....	11 6	25 0	1606–7
.....	1 10¼	.....	.....	.....	27 7	1607–8
36 9	1 8	.....	.....	9 6	31 9	1608–9
33 4	2 2¼	1 2	.....	.....	30 10	1609–10
33 2¾[1]	2 2¼	1 2¼	20 0	.....	27 5	1610–1
33 0	2 2	1 2	.....	13 4	27 2	1611–2
30 5	2 4½	1 1	.....	.....	12 0	1612–3
33 4	1 10½	.....	.....	.....	34 4	1613–4
33 4	2 9¾	1 0	.....	13 4	34 4	1614–5

[1] 'The load 15 quarters, the sack four bushels.'

[2] 1 *m.*

	Candles, doz. lbs.	Tallow, cwt.	Sea-coal, chaldron, Cambridge.	Charcoal, load, Cambridge.	Sedge, hundred.	Turf, thousand.	Sea-coal, chaldron, Eton.	Charcoal, load, Eton.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1615–6	4 11	.....	13 2	26 8	7 8	3 4	.....	19 0
1616–7	4 7¼	.....	13 6	26 8	5 0	3 4	.....	19 0
1617–8	4 4¼	.....	13 0	26 0	5 0	3 4	.....	19 0
1618–9	4 6	.....	13 0	25 0	5 0	3 2	.....	20 0
1619–20	4 6	37 4	15 0	22 9	.....	.....	.....	20 0
1620–1	4 9¾	37 4	14 2	25 0	5 8	4 1¼	.....	20 0
1621–2	4 6½	.....	15 11½	25 0	7 6½	3 11½	.....	20 0
1622–3	4 1¾	28 0	14 5	25 2	5 0	3 6	.....	20 0
1623–4	4 2	28 0	13 4	25 0	5 0	3 4	.....	20 0
1624–5	5 0½	35 1	13 6¾	25 0	5 0	4 5½	.....	20 0
1625–6	4 0½	41 11	17 5	24 6	5 0	4 0¾	.....	20 0
1626–7	4 4¾	38 7	15 6¼	25 0	5 0	3 2	.....	20 0
1627–8	4 7½	37 0	15 7¾	25 0	5 0	3 7	.....	20 0
1628–9	4 6¼	38 5	19 6	25 0	6 0	.....	.....	20 0
1629–30	4 5	37 4	18 8	25 0	7 7½	.....	.....	20 0
1630–1	4 3¾	41 0	13 10½	25 0	5 10	5 0	.....	.....
1631–2	4 2¾	.....	15 3	25 0	5 4½	4 5½	.....	20 0
1632–3	4 3¼	.....	16 5½	26 0	4 11	4 5¼	.....	20 0
1633–4	4 7¼	37 4	17 8	.....	5 10¼	5 4¼	.....	20 0
1634–5	5 1½	.....	16 3¼	27 0	6 4	4 10	.....	21 0
1635–6	5 1¾	.....	16 8	28 0	6 1	3 9½	.....	.....
1636–7	4 8	28 0	17 8	29 0	6 8	3 6	.....	24 6
1637–8	4 10	33 8	17 10½	28 0	6 4½	.....	.....	23 0
1638–9	4 11	28 0	19 5½	28 0	6 0	4 3¼	.....	24 0
1639–40	4 10½	.....	16 7½	.....	6 3	5 6½	.....	25 0
1640–1	4 11½	.....	24 9	34 6	6 3	6 0¼	.....	.....
1641–2	5 6	.....	23 4	35 0	5 9	4 1¼	.....	.....
1642–3	4 11½	.....	29 5	.....	6 0	3 8½	.....	.....
1643–4	4 7	.....	42 11	40 0	.....	7 3¾	.....	.....
1644–5	4 7	23 4	25 11	40 0	8 6	7 0½	.....	.....
1645–6	4 7½	23 4	17 2½	40 0	7 4	6 4	.....	27 0
1646–7	6 0¼	23 4	18 0	40 0	10 11	7 3¾	.....	.....
1647–8	6 5¾	28 0	16 10	40 0	10 0	6 2¾	.....	.....
1648–9	6 0½	28 0	21 3	40 0	8 6	6 6¾	.....	27 0
1649–50	6 5½	28 0	17 6	40 0	8 0	5 3¼	.....	30 0
1650–1	5 10	28 0	20 5	35 0	.....	5 9	.....	25 0

Charcoal, load, Oxford.	Charcoal, quarter, Oxford.	Charcoal, sack.	Sea-coal, chaldron, Oxford.	Firewood, load.	Faggots, hundred.	
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	
34 7	.....	1 4½	.....	10 1½	.....	1615-6
28 0[1]	.....	1 0	.....	13 1	14 0	1616-7
30 5[1]	3 0	1 0	.....	14 9¼	.....	1617-8
27 10¾	.....	1 0	.....	15 4½	.....	1618-9
30 8	3 4	1 0	.....	12 0	.....	1619-20
26 0	.....	1 0	.....	20 0	13 0	1620-1
30 2	3 0	1 0	.....	10 8	.....	1621-2
30 0[2]	3 0	0 11	.....	11 0	.....	1622-3
28 6	3 0	1 0	.....	.....	.....	1623-4
28 9	.....	1 0	.....	13 3	.....	1624-5
27 6	.....	1 0	.....	16 9	.....	1625-6
26 8	.....	1 0	.....	.....	.....	1626-7
27 0	.....	1 0	.....	.....	39 6	1627-8
27 0	.....	.....	.....	33 0	.....	1628-9
27 0	.....	.....	.....	.....	.....	1629-30
27 0	.....	.....	.....	17 0	24 0	1630-1
26 0	.....	.....	.....	.....	.....	1631-2
27 1	.....	.....	.....	19 3	.....	1632-3
28 0	.....	1 10	.....	23 0	.....	1633-4
28 0	.....	1 1½	.....	12 0	30 0	1634-5
28 0	.....	.....	.....	.....	25 0	1635-6
28 0	.....	0 11¼	.....	26 1½	.....	1636-7
29 0	.....	.....	.....	.....	34 0	1637-8
29 0	.....	1 0	.....	26 6	.....	1638-9
31 0	.....	1 0	.....	.....	26 8	1639-40
34 3	.....	1 2¼	.....	26 6	.....	1640-1
34 2	.....	1 2	38 0	.....	25 0	1641-2
35 0	.....	1 2¾	60 0	.....	25 2½	1642-3
42 0	.....	1 4½	.....	25 9	18 7	1643-4
.....	2 4[3]	1 5	50 0	11 2¼	27 5½[5]	1644-5
49 3	4 6	1 1	.....	10 6	28 1[5]	1645-6
28 8	2 5[3]	0 11	.....	.....	28 0	1646-7
.....	2 6[3]	0 11	.....	.....	27 3½[5]	1647-8
.....	2 6[4]	0 11	.....	10 0	29 5[5]	1648-9
.....	2 8¾	1 0	.....	.....	28 10¼[5]	1649-50
.....	2 8	1 0	.....	.....	28 0½[5]	1650-1

[1] Each ten quarters. [2] The load 31 sacks. [3] Winchester.
[4] Three sacks to quarter. [5] Winchester by the thousand.

	Candles, doz. lbs.	Tallow, cwt.	Sea-coal, chaldron, Cambridge.	Charcoal, load, Cambridge.	Sedge, hundred.	Turf, thousand.	Sea-coal, chaldron, Eton.	Charcoal, load, Eton.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1651–2	5 9¾	28 0	21 8	35 0	.....	5 3½	.....	.....
1652–3	5 3¼	28 0	25 7	35 0	.....	5 9	39 4	37 0
1653–4	5 2½	28 0	21 0	40 0	.....	4 10	28 3	38 0
1654–5	4 5¾	23 4	19 8½	40 0	5 0	5 9	28 2	.....
1655–6	4 2¼	23 4	22 2¾	40 0	.....	6 10	.....	43 9
1656–7	4 6¼	23 4	19 0	40 0	.....	4 10½	24 6	45 0
1657–8	5 3½	23 4	20 0	40 0	.....	5 6	25 9	45 0
1658–9	5 2½	28 0	19 10	40 0	.....	5 6	.....	45 0
1659–60	4 11	26 10	18 2	39 0	.....	4 11½	24 3	50 0
1660–1	5 8¼	28 0	18 0	39 0	.....	8 1½	22 6	44 0
1661–2	5 7¼	28 0	18 0	39 0	.....	7 7¼	21 9	47 6
1662–3	5 7	28 0	18 0	39 0	.....	7 6	20 0	48 9
1663–4	5 8	28 0	18 0	39 0	.....	8 6	22 0	50 0
1664–5	5 9	28 0	21 0½	39 0	.....	7 6	.....	49 6
1665–6	5 6	.....	19 0	.....	.....	6 10½	38 3	50 0
1666–7	5 6	28 0	25 4	39 0	.....	6 10¾	28 6	50 0
1667–8	5 0½	25 8	21 8	39 3	.....	6 9½	31 10½	50 0
1668–9	4 10½	23 4	19 5	39 0	.....	6 3	24 6	50 0
1669–70	5 0	23 4	18 0	39 0	.....	6 8¼	26 1½	50 0
1670–1	5 5	22 2	18 0	39 0	.....	5 2¾	24 10	50 0
1671–2	4 8½	22 2	21 6	39 0	.....	7 10	42 3	50 0
1672–3	4 6	22 2	30 1	39 0	.....	8 1¼	45 0	50 0
1673–4	4 9	25 8	19 3	39 0	.....	7 6	30 6	50 0
1674–5	5 4	25 8	29 8¾	39 0	.....	6 9	29 9	50 0
1675–6	5 3¾	25 8	19 6	39 0	.....	5 9	29 3	50 0
1676–7	5 9¼	25 8	19 6	39 0	.....	6 8	29 4	.....
1677–8	5 6¼	25 8	19 6	39 0	.....	7 1½	29 10	50 0
1678–9	5 3	25 8	19 0	39 0	.....	6 10	27 7	50 0
1679–80	5 4	25 8	18 9	39 0	.....	6 10	26 7	50 0
1680–1	4 10	25 8	18 9	39 0	.....	6 4¾	25 4	50 0
1681–2	4 8	25 8	19 0	39 0	.....	6 6	25 7	50 0
1682–3	4 4½	25 8	18 6	39 0	.....	6 8	26 0½	50 0
1683–4	4 7½	22 2	19 6	39 0	.....	6 8	27 2	50 0
1684–5	5 4	25 8	19 0	39 0	.....	6 8	29 2½	50 0
1685–6	5 0	25 8	18 6	39 0	.....	6 10	25 0	50 0
1686–7	4 9	25 8	18 0	39 0	.....	6 10	25 6	50 0

Charcoal, load, Oxford.	Charcoal, quarter, Oxford.	Charcoal, sack, Oxford.	Sea-coal, chaldron, Oxford.	Firewood, load.	Faggots, hundred.	
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	
.....	2 4[1]	0 11	.....	.....	11 0	1651-2
.....	2 8	1 0	.....	.....	18 0	1652-3
.....	3 6	1 1	.....	.....	28 0[2]	1653-4
.....	3 8¼	1 2	.....	.....	15 0	1654-5
.....	3 5	1 2	.....	.....	28 3½[2]	1655-6
.....	3 5	1 2	.....	20 0	29 4[2]	1656-7
.....	3 4½	1 2	40 3	.....	19 4	1657-8
.....	3 3	1 2	38 10¾	.....	13 0	1658-9
.....	.....	1 1¼	35 10½	18 9	12 0	1659-60
.....	.....	1 1	36 4	.....	31 3[2]	1660-1
.....	3 3	1 2	38 9	.....	13 0	1661-2
.....	3 3	1 2½	38 6	.....	47 0¾[2]	1662-3
.....	3 1[1]	1 2	36 8¼	10 0	17 6	1663-4
.....	3 3½[1]	1 2	45 0	.....	25 0	1664-5
35 2½	3 3	1 2¼	.....	16 8½	22 10	1665-6
38 0½	3 0	1 1½	.....	15 2¼	34 0[2]	1666-7
.....	3 1½	1 1	.....	20 0	30 6[2]	1667-8
40 6	3 0	1 1	.....	14 0	39 0[2]	1668-9
.....	3 0	1 1	37 6	.....	20 0	1669-70
.....	3 0	1 1	33 0	20 0	22 6¾	1670-1
.....	2 10[1]	1 1	42 0	.....	21 0	1671-2
.....	2 10½[1]	1 1	54 4½	20 0	21 0	1672-3
.....	2 10½[1]	1 1	.....	19 0	22 6[2]	1673-4
.....	2 7[1]	1 2¼	50 5[1]	.....	22 4[2]	1674-5
37 6	2 6[1]	1 5	40 4½	20 0	36 2[2]	1675-6
45 0	.....	.....	42 9	20 0	.....	1676-7
45 0	.....	1 7	35 0	.....	14 0	1677-8
45 0	2 6¾[1]	1 6	36 0	20 0	20 0	1678-9
45 0	2 6½[1]	1 6	36 0	20 0	20 0	1679-80
.....	2 8[1]	1 6	34 8	20 0	25 0	1680-1
.....	2 6[1]	1 6	35 4	20 0	14 0	1681-2
.....	2 7[1]	1 6	35 0	20 0	20 0	1682-3
.....	2 6½[1]	1 5¼	35 10	20 0	20 0	1683-4
.....	2 6½[1]	1 6	42 3	20 0	.....	1684-5
.....	2 7½[1]	1 6	41 0	.....	.....	1685-6
.....	2 6[1]	1 6	35 7	20 0	36 4[2]	1686-7

[1] Winchester. [2] Winchester by the thousand.

	Candles, doz. lbs	Tallow, cwt.	Sea-coal, chaldron, Cambridge.	Charcoal, load, Cambridge.	Sedge, hundred.	Turf, thousand.	Sea-coal, chaldron, Eton.	Charcoal, load, Eton.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1687-8	4 5¾	25 8	18 0	39 0	.....	6 0	25 6	.....
1688-9	4 7¾	23 4	20 0	39 0	.....	5 9	32 6	50 0
1689-90	4 10½	25 8	23 6	39 0	.....	5 9	36 8	50 0
1690-1	4 6¾	25 8	23 8	39 0	.....	6 0	36 0	50 0
1691-2	4 5	25 8	24 0	39 0	.....	6 0	34 7	50 0
1692-3	4 9¾	25 8	25 8	39 0	.....	6 0	32 8	50 0
1693-4	5 9½	25 8	25 0	39 0	.....	5 6	31 0	50 0
1694-5	6 5	25 8	25 10	39 0	.....	4 9¼	31 10¾	50 0
1695-6	5 11	24 6	26 6	39 0	.....	.....	31 4	50 0
1696-7	5 7	25 8	26 0	39 0	.....	5 8	31 4	50 0
1697-8	5 5¾	25 8	21 0	39 0	.....	5 2	.....	50 0
1698-9	5 3¾	28 0	21 0	39 0	.....	5 2	27 10	50 0
1699-1700	5 4	29 2	22 0	39 0	.....	5 0	26 11	50 0
1700-1	5 2	28 0	24 6½	39 0	.....	5 0	29 5	50 0
1701-2	5 8	.....	30 0	39 0	.....	5 0	35 5	50 0
1702-3	5 4	.....	30 0	39 0	.....	6 0	42 10½	50 0

Decennial Averages.

	Candles, doz. lbs.	Tallow, cwt.	Sea-coal, chaldron, Cambridge.	Sea coal, chaldron, Eton.	Charcoal, load, Cambridge.	Charcoal, load, Eton.	Sedge, hundred.	Turf, thousand.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1583-1592	3 6½	30 0	13 3½	.....	19 9½	17 0	3 8	2 3
1593-1602	3 11	35 4½	13 9¾	.....	20 10½	17 8	4 6¾	.....
1603-1612	4 0¾	.....	14 11	.....	24 11½	18 4	5 3½	4 6¼
1613-1622	4 6¼	34 3	14 2	.....	25 6¼	19 6	5 9¾	3 9½
1623-1632	4 4¾	37 2	15 11	.....	24 11½	20 0	5 5¾	4 0¾
1633-1642	4 11½	31 9	19 11½	.....	29 11¼	23 0	6 1¾	4 6¾
1643-1652	5 8	26 3	22 8¾	39 4	38 6	29 2¼	8 6½	6 3½
1653-1662	5 0¾	26 0½	16 4¾	24 2	39 7¼	45 2½	.....	6 1½
1663-1672	5 2¼	24 9	22 2½	33 8½	39 0	49 10½	.....	7 0¾
1673-1682	5 1¼	25 8	20 1¾	27 11	39 0	50 0	.....	6 8½
1683-1692	4 9	25 1	20 11½	30 5¾	39 0	50 0	.....	6 3
1693-1702	5 7¼	26 6½	25 2¼	32 1	39 0	50 0	.....	5 3
Gen. Average	4 8¾	28 5¼	18 4	31 3¼	30 11¼	32 5¾	5 7¾	5 2

Charcoal, load, Oxford.	Charcoal, quarter, Oxford.	Charcoal, sack. Oxford.	Sea-coal, chaldron, Oxford.	Firewood, load.	Faggots, hundred.	
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	
.....	2 6[1]	1 6	46 6[1]	20 0	37 7[2]	1687–8
.....	2 2[1]	1 6	37 6	20 0	23 4	1688–9
.....	2 6½[1]	1 6	44 0	20 0	35 9[2]	1689–90
33 7½	2 4½[1]	1 6	47 0	20 0	35 1[2]	1690–1
.....	2 4[1]	1 6	45 0	20 0	32 6[2]	1691–2
.....	2 4½[1]	1 6	42 0	20 0	18 0	1692–3
.....	.....	1 5¾	40 9	20 0	.....	1693–4
.....	.....	1 6	39 6	20 0	.....	1694–5
.....	.....	1 6	47 6	20 0	.....	1695–6
.....	.....	1 6	48 2	20 0	.....	1696–7
.....	.....	1 6	41 0	20 0	20 4	1697–8
.....	.....	1 6	37 6	20 0	.....	1698–9
.....	2 7¼[1]	1 7	40 8	.....	.....	1699–1700
.....	2 7½[1]	1 6	39 6	.....	.....	1700–1
.....	2 7½[1]	1 6	41 10	.....	.....	1701–2
.....	.....	.....	.....	.....	.....	1702–3

DECENNIAL AVERAGES.

Charcoal, load, Oxford.	Charcoal, quarter, Oxford.	Charcoal, sack, Oxford.	Sea-coal, chaldron, Oxford.	Firewood, load.	
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	
24 5¾	1 5	.....	.....	7 10½	1583–1592
27 0	1 7	.....	.....	8 6½	1593–1602
33 4	1 10¾	1 1¾	20 0	10 8½	1603–1612
31 5¼	2 10	1 0½	.....	13 4½	1613–1622
27 3	3 0	1 0	.....	19 10	1623–1632
30 5¼	.....	1 1	49 0	22 10	1633–1642
40 0	2 9	1 0¾	50 0	14 4¼	1643–1652
.....	3 4¾	1 1¾	37 11	19 4½	1653–1662
37 11	3 0½	1 1½	41 4	16 6¾	1663–1672
43 6	2 7¼	1 5	34 9	19 10½	1673–1682
33 7½	2 5½	1 6	38 7	20 0	1683–1692
.....	2 7½	1 6	41 8¼	20 0	1693–1702
32 10½	2 6¼	1 2¼	39 2	15 7¼	Gen. Average

[1] Winchester. [2] Winchester by the thousand.

CHAPTER XIV.

WOOL, HIDES, AND BARK.

VERY little information has as yet been discovered as to the price of wool and hides. No doubt a trade in wool was still carried on with the Continent, though political events had greatly narrowed the demand, and the growth of the English woollen manufacture was tending towards an absorption of the home product, the price of cloth being apparently four or five times that of the material from which it was manufactured. Besides, the records of agriculture are fewer as time goes on, and even in those few domestic accounts of country gentlemen which still survive and have been accessible, very little information has been given. It would seem that sales of wool from the home farm were seldom included in such accounts of receipt and expenditure.

The discovery in Eton College of wool prices for thirty consecutive years led me to hope that I might find in the archives of such corporations as purchased large quantities of sheep in near and in distant markets and retained them for home consumption during a considerable part of the year, entries of the wool which was shorn and sold, as well as of sheep fells, which under the three names of woolfells, winterfells and shearlings were sold at such various prices. The Eton entries are of this kind. The College bought large numbers of sheep, sending their agents from twenty to a hundred miles off, to attend fairs and markets and to make purchases. These sheep were shorn at the proper time and the wool was sold. These animals, which were slaughtered before

and after shearing time, supplied the fells which under the names given above were disposed of to the dealers.

Eton College continued the custom till the beginning of the seventeenth century, when it begins to buy mutton direct from the dealers, and the record is lost. It continues to buy oxen till the commencement of the civil war, and when its accounts after a short interval recommence, it abandons the buying of oxen by the head, and purchases beef. But the purchases of sheep by Magdalen College, Oxford, on the same system, were continued to a much later period than those of Eton, and I had hoped, especially as the bursar's account of expenditure constantly notes the charge for clipping and winding (*involvere*) the wool supplied with their purchases, that the Great Indenture, in which the receipts of this corporation are given, would supply me with this much wanted evidence. But this series of indentures is missing, or has not yet been discovered. Had it come to light, I should have been, I doubt not, supplied with evidence for forty years longer, and with evidence of such qualities, the sheep being supplied from very various districts, as would have given as fair an average of the prices generally obtained as the Eton entries do.

Nor is any trustworthy information supplied by Smith's Memoirs of Wool, a work which is often referred to as an authority on this article. All it says of the seventeenth century is that there were fluctuations in the price of the article, but it does not suggest that there was any increase in the price, such as at all indicates that wool was affected by those causes which raised prices generally through the seventeenth century, or the facts which I shall have to comment on hereafter. I am indeed disposed to infer that on the whole the price of wool was almost stationary in England during the seventeenth century, and indeed for some time afterwards; that it was at from 9*d.* to 1*s.* the pound according to quality and demand, and that there was a tendency rather towards lessening prices. The register of the wool prices which Houghton gives for the last twelve years of the period before

me bears out this view. I say quality, for the reputation of Leominster wool, which is noted in the petition of 1454, is incidentally referred to in the play of Friar Bacon and Friar Bungay.

As the record of wool prices given in my last volumes (iii. and iv.) for the latter part of the period is very scanty, I have printed the Eton prices of wool and woolfells from 1566 to 1582, from the Eton accounts. For the eleven years 1572–1582 this gives an average of 20*s.* 9*d.* the tod of 28 lbs., for the next decade 1583–1592 of 21*s.* 6½*d.*, and of 1593–1601 of 25*s.* 6¾*d.* During this period then the price of wool is rising.

During the rest of the period, neglecting Houghton's prices for a time, eleven localities only in ten years supply me with wool prices. Three are from Gawthorp, and represent wool on this Lancashire estate; two are from D'Ewes, and are prices at which he sells from his land; one is from Northiam, in Sussex, where a large sale is made in 1618; one from Cuckfield and one from Harting in the same county, one from Horstead Keynes, and two from Foxcombe in Hants, at the very conclusion of the period. The latter prices seem to indicate that at the end of the century wool is cheaper than it was at the beginning.

But here there is a difficulty. I am not clear what the weight of the Gawthorp stone was. If it be half a tod, Lancashire wool was at 30*s.* 2*d.* the tod in 1616, at 27*s.* in 1617, and at 28*s.* 8*d.* in 1620, the latter being described as dressed wool. D'Ewes sells in 1617 at 20*s.* 8*d.*, and in 1636 at 36*s.* The price at Northiam in 1618 is 28*s.*, and the average of the four years 1616, 1617, 1618, 1620 is 27*s.* 7½*d.* In 1633 it is 27*s.* a tod at Harting, which with the prices of 1636 is at an average of 31*s.* 6*d.* In 1672, white wool is 23*s.* 4*d.* a tod, black 25*s.* 8*d.* At Cuckfield in 1691 it is 20*s.* a tod. In 1701 it is 20*s.* 8*d.* at Foxcombe in Hants; and in 1702, 17*s.* at the same place. These are all the facts which have been discovered in the accounts. I am not without hope that I may

still come upon wool prices, but as yet I am baffled in my search, and may be doomed to disappointment.

Besides the Eton entries in the last twenty years of the sixteenth century, certain other quotations will be found. I assume, and with good reason, that the Eton prices are significant of the average price of wool in Southern England, and within the proximity to a market like London, or an active cloth manufacture as that in Reading.

In 1584, I find on Leonard's estate that ten bags of wool were sold at *6s.* each. I have not found this measure elsewhere. But it should be something less than a stone. The Gawthorp wool sells at *4s.* a stone in 1586 and 1588, though in this latter year it sells a large quantity at *10s.* or *20s.* the tod, that is nearly at Eton price. In the Lestrange Accounts of 1587 a considerable quantity is disposed of at *3s. 4d.* a stone. Norfolk wool was not of very high quality, but I suspect that the stone is here the clove of seven pounds. The next year the same locality gives *5s. 4d.*, which multiplied by four is nearly the same as the Eton price. In 1859 Gawthorp wool is sold at a less price than Eton, viz. at *20s.*, when the latter is *26s.*, the quantity being considerable, and indicating that Shuttleworth disposed of more than the produce of a single year. In 1591 the price of the Gawthorp wool is the same as that in Eton.

For eight consecutive years, beginning with 1591, we have prices of wool at Worksop, and then again for 1600 and 1601. The price for these ten years is by the tod, *20s. 10d.*, *19s. 8d.*, *19s. 6d.*, *18s.*, *18s. 6d.*, *18s. 7d.*, *15s. 11d.*, *16s.*, *18s.*, *18s.*, and the average therefore is *18s. 5½d.* The value of Worksop wool is therefore markedly lower than that of the Eton supply. The price of Nottingham wool in Houghton's tables is low, but corresponds pretty exactly with the average supplied from the Worksop sales. The sales are a fairly large quantity too, and probably indicate, as in the case of Eton, the amount generally available from the annual consumption of sheep in a large establishment and by a wealthy proprietor. There

is no evidence in the accounts that there was a home farm at Worksop. In the few entries of black wool, it is at a higher price than white.

The Eton accounts give some information of the price of woolfells, the price of which is generally more steady than that of wool, and rather suggests sales by contract. In 1566 and 1567 the average of woolfells is 20*s.* the dozen, in 1568 17*s.*, in 1569 18*s.*, while in 1570 it is only 13*s.*, and in 1571 18*s.* again. Now if we deduct from the price of woolfells the value of the skin which is expressed in the price of shearlings, the short wool of which is of no market value, shearlings being always 6*s.* a dozen, the wool on a dozen fells in full fleece at 20*s.* is worth 14*s.*, and the fleece must have weighed about 1 lb. 10 oz. avoirdupois.

In the first three years in which shearlings, winterfells and woolfells occur, they are at 6*s.*, 14*s.*, and 20*s.* the dozen. In 1592, they are at 7*s.*, 14*s.*, and 24*s.*; in 1593, at 8*s.*, 14*s.* and 26*s.*; in 1594, at 8*s.*, 16*s.*, and 26*s.*; in 1596, at 8*s.*, 19*s.*, and 31*s.*; in 1597, at 11*s.*, 20*s.*, and 32*s.*, the probable cause of this rise being the size of the sheep. In 1598, 1599, and 1600 they are at 11*s.*, 19*s.*, and 28*s.*; in 1601, at 12*s.*, 20*s.*, and 31*s.*, the sheep in this case again being probably large.

At Gawthorp in 1596 woolfells are sold at 30*s.* the dozen, and on the Staffordshire estate of Lady Leicester in 1634 at 26*s.*

There is also an entry of lambswool in 1618 at 3*s.* 4*d.* the quarter, a measure which I have not seen before, but which I conclude to be the clove or quarter tod.

The evidence which I have to offer is, I feel, meagre and unsatisfactory, but it points I think to the fact that the price of wool was lower in the seventeenth century on the whole than it was at the end of the sixteenth. It is very probable that as agriculture improved, or as better supplies of winter fodder were forthcoming, more sheep were kept by farmers, and that the price of wool fell by reason of greater plenty. So in the last quarter of the eighteenth century wool was

cheaper than it was in the seventeenth, ranging from 14*s.* to 20*s.* the tod.

HIDES. Eton College supplies me with the price of hides from 1566 to 1640, or seventy-four years. There are also a few entries from other places. Eton College purchased oxen as it did sheep, from remote markets and in considerable numbers, keeping a slaughter-house on its premises and butchers in its service. In estimating the averages of hides, I have omitted inferior qualities. In three entries from Harting the weight of the hide is indicated, the article being sold by the nail of seven pounds, this being from 60 to 65 lbs., at least as far as the Harting animals are concerned. The price of a raw hide, 2*d.* to 2½*d.* a pound, does not differ very materially from that of a pound of beef.

The following are the decennial averages for the price of Eton hides:—

1566–1570 ...	7*s.* 8½*d.*	1601–1610 ...	12*s.* 0*d.*
1571–1580 ...	9*s.* 1½*d.*	1611–1620 ...	14*s.* 6¼*d.*
1581–1590 ...	11*s.* 0½*d.*	1621–1630 ...	15*s.* 1½*d.*
1591–1600 ...	12*s.* 6¼*d.*	1631–1640 ...	16*s.* 1½*d.*

From this table it will be seen that the price rises regularly with each decade. Generally the College sells the hides quarterly, or at least enters the sales quarterly. Two or three times, as in 1602, 1633, and in 1634, it appears to enter the sales separately. In the first of these there are ten sales entered, in the second fourteen, in the third sixteen. But more frequently the College seems to have sold them all together and have itself struck an average, or entered the whole price received under this head. They also sold the offal, and regularly entered the receipt.

Raw and salt hides are purchased for the navy at London and Rochester, at nearly the same prices as the Eastern produce. Those at Harting appear to be smaller than the Eton hides. But the Gawthorp hides, if one can judge by the price, are considerably larger than those at Eton. Thus in 1593 Shuttleworth sells eight ox-hides at 17*s.* 6*d.*, the Eton price

being 11*s.*; in 1599 sixteen at 18*s.*, the Eton price being 12*s.*, and the Rochester 13*s.* 2*d.* In 1604 a bull's hide fetches 14*s.* 4*d.*, the Eton price being 11*s.* 6*d.* In 1617 six ox-hides fetch 23*s.* 6*d.* each at Gawthorp, the Eton price being less than 15*s.* In 1618 three hides fetch over 20*s.* each, the Eton price remaining at the rate of the previous year. The two last entries at Gawthorp are in 1621 and 1622, where ox-hides are at 20*s.* and 19*s.* Again, on Lady Leicester's lands ox-hides are at 18*s.* 4*d.*, when the average of the sixteen Eton entries is 15*s.* 4*d.*

D'Ewes gives the price of hides from his estate for four consecutive years, 1636, 1637, 1638, and 1639. In the first it is 12*s.* 4½*d.*, in the second it is 13*s.*, in the third 12*s.* 4¼*d.*, in the fourth 11*s.* The prices are lower than those of Eton in the same year. Harting also quotes hides in 1631, 1632 and 1633. In the first year the price is 11*s.* 3¾*d.*, in the second 13*s.* 3*d.*, in the third 12*s.* 6*d.*

Hides of inferior quality, cow, kine, heifer, steer and the like, are no doubt grouped with a better and more valuable kind. Thus a cow-hide at Eton in 1566 is put at 5*s.* 8*d.*, when an ox-hide is 7*s.*; another in 1580 at 4*s.*, when the ox is 8*s.* Shuttleworth sells kine-hides at 9*s.* when he gets 17*s.* 6*d.* for ox-hides, heifer and kine-hides at 9*s.* when the ox-hide is 18*s.* D'Ewes sells steer-hides at 7*s.* and 10*s.* when he gets from 11*s.* to 13*s.* for ox-hides, 7*s.* for a heifer-hide, 11*s.* for a cow-hide.

The notes contain a few entries of the price of leather, described as backs, butts, and upper leathers. Backs are bought for the Rochester ship stores at 20*s.* in 1587 and 1588, at 24*s.* in 1859, at 22*s.* in 1591: 24*s.* is given for backs at London in 1599, and at Portsmouth in 1600 and 1622.

Butts are bought at Chatham in 1619 at 30*s.*, in 1620 from 29*s.* to 31*s.*, in 1621 at 30*s.*, in 1622 at 33*s.* and 33*s.* 4*d.*, in 1623 at from 27*s.* to 29*s.* 4*d.*, in 1625 at prices varying from 25*s.* to 32*s.*, and in 1626 at rates from 31*s.* to 41*s.* In 1629 butts cost 35*s.* at Chatham, and backs 30*s.* at Portsmouth; in 1630 the

price of butts at Chatham is 34*s.*, when the entries cease for a time.

In 1653 tanned hides cost 18*s.* 5*d.* each in London. At the same place in 1663 leather backs are at 28*s.* 4*d.*, backs and butts at 28*s.* 8½*d.*, upper leather hides at 21*s.* 1¼*d.* In 1669 backs and butts are at 14*s.* 3¾*d.*, upper leather hides at 16*s.* 2½*d.* There is a marked contrast in these prices. This painful change perhaps explains the reason why Irish cattle were described by the Lords in 1667 as a nuisance, and their importation into England forbidden, because English rents were lowered by Irish imports. Some prices of leather are in Houghton's Sundries.

It may be convenient to connect the comments which may be made on the price of hides with those which arise from entries of the price of oak bark. This article is sold frequently by Eton College, and occasionally by New College, Oxford. The measures are the load and the yard, the former containing 55 of the latter at Eton and 52 at Oxford. These measures are now obsolete, and on enquiry I find that no memory survives of their use.

There are great fluctuations in the price of bark from the Eton woods. The earliest entry, in 1625, is at 40*s.* the load, when only a small quantity is sold. Then there is an entry in 1636 at 66*s.* The next is in 1645, when entries are fairly continuous, for there are fifty entries at Eton from this date to the end of the period. The highest price during the whole period is 1664, when it makes 165*s.* the load; the lowest 1651, when it is only 50*s.* Even in the same year great differences occur; in 1683 the College sold nine loads at 55*s.* and three at 100*s.* Twice, in 1672 and 1680, it is at 110*s.* From 1690 to 1702 the price is uniform, 82*s.* 6*d.*, and this seems to suggest a contract price. It is generally peeled and stacked at 18*s.* 9*d.* a load.

In all probability, Eton being at a comparatively short distance from London, and having cheap and easy water communications with the Southwark tanneries, which have been

for centuries a local industry in that region, got a far better market for its produce than an Oxford College could, where the communication was more difficult and the market, if it existed at all, was less regular, for though there may have been tanners in Oxford, there is, as far as I have read, no note of them in local history. The load at New College, where the yard is also mentioned, is 48*s.* in 1664 (Eton 165*s.*), 45*s.* in 1667, 42*s.* 6*d.* in 1669 (in neither of these years is there any Eton entry), 39*s.* in 1667 (Eton 52*s.*), and 43*s.* in 1684 (Eton 95*s.*). From these figures it will be seen that bark at Oxford realised less than half the price at which the Eton fellows sold their produce. It is perhaps hardly necessary to mention that oak bark was the only material used at that time for tanning leather.

The following are the Eton averages :—

1625 ..... 40*s.* 0*d.*	1663–1672 ... 103*s.* 4*d.*
1636 .. .. 60*s.* 0*d.*	1673–1682 ... 90*s.* 9*d.*
1645–1652...56*s.* 8*d.*	1683–1692 ... 84*s.* 10*d.*
1653–1662...84*s.* 8*d.*	1693–1702 ... 82*s.* 6*d.*

HOUGHTON'S WOOL PRICES. These, as usual, are derived from many localities all over England. I have divided these prices into districts, the Home taking London and places in the immediate vicinity; the South-west, Wilts, Dorset, Devon, and Cornwall; the East, the counties of Essex, Suffolk, Norfolk, Cambridge, Hunts, and parts of Herts; the West-Midland, the counties about the Severn and Wye; the Midland, Derby, Leicester, Nottingham, Northampton, &c.; the Northern, England north of the Humber; and the South, Hants, Sussex, and Kent.

It is quickly discernible, from investigating these prices, that the record is not of local growths, but of markets for export and manufactures. That export had a good deal to do with the price is clear from the fluctuations in the market of some ports, and the high price at others, as for example, Liverpool. Some of the best wools were grown in the West-Midland district, but the price in these markets is by no means

high. The prices therefore give us no clue to the value of local produce.

One of the years, 1695, shows a markedly high price all over the country. But on the whole, prices are lower than they were at the end of the sixteenth century. It is noteworthy that the lowest average is London and the Home district. The fact is, the cloth manufacture of London and its vicinity was insignificant. But that of the South-west, the Midland, and the North was considerable; while the Eastern counties used coarse wools for the baize, finer fibre for the say manufacture.

The subjoined table is of Houghton's averages.

Houghton's Wool Prices in Districts.

Tod (28 lbs.).

	Home.	South-west.	East.	Midland.	West-Midland.	North.	South.	Annual average.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1691	16 0	18 9½	17 6	15 1½	.....	13 4¼	15 0	15 7½
1692	19 5¼	18 3¼	16 4¾	19 0½	16 3	14 4¼	17 5¾	16 9
1693	18 1	21 8¾	15 9¾	19 1	17 1½	16 5	18 8	18 1½
1694	18 8	23 0	18 0	21 9½	16 1	20 5	18 3	19 5½
1695	23 7	28 6½	27 2½	29 4¼	24 8	28 5	21 10	26 1¾
1696	19 8	26 0	22 11	22 9¼	30 3	23 0½	20 1	23 6
1697	19 5	23 2½	21 7	23 5	23 9	24 10	28 0	23 5½
1698	19 0¾	22 3½	21 5	23 9¾	21 11½	23 5	23 6	22 2½
1699	18 5	24 7	19 7	22 10	21 11	23 6	24 3½	22 2
1700	18 4	22 0	19 7	22 2	19 11	22 10	24 0	21 1½
1701	18 6	21 4¾	19 5	23 0¼	18 10¾	24 0	24 0	21 3¾
1702	18 6	21 4	18 0	23 0	18 10¾	23 11	24 0	21 1
Average	18 11¾	22 7	19 9½	22 11½	20 10½	21 6½	21 9	20 11

CHAPTER XV.

ON THE PRICE OF FISH.

In the period before the Reformation, a fish diet was at times a religious obligation, and it is very probable that the regulations of the Roman Church made those who lived by the capture, the curing, and the sale of fish averse to the Reformed ritual and practice. The Legislature, perhaps with an eye to this sentiment, attempted to enforce a fish diet at certain seasons and on certain days with an avowed motive in the maintenance of a national industry, and with the view of supplying a training for seamen. Besides, it was very well known that the Dutch made much profit by their enterprise in the fisheries of the German Ocean, from which the English governments tried to exclude them. Selden employed his great learning and skill in arguing for this monopoly, and Grotius, so grievously wronged by the Orange party in Holland, answered him.

Still, though my record of fish prices is not nearly so copious as it was in the last two volumes, it is fairly continuous for certain kinds of fish. Only four years fail me for one kind of fish, only eleven for another kind, though in the latter I have been obliged to draw on the Oxford returns of salt fish, under the name of *salsamenta*, in which I recognise the large ling of the other accounts. These two are haberdens and great ling. The former of these, caught in the German Ocean and principally off Aberdeen, got this name from the Scottish city in which they were cured. The latter were

probably obtained in the neighbourhood of Iceland. There are however many other kinds of salt fish, on which I shall be able to comment. For the first fifty to sixty years of the period a smaller kind of ling is quoted. But entries of this kind of fish are rare towards the conclusion of the period.

By far the largest amount of the evidence, the records of the corporation being fortunately preserved, comes from King's College, Cambridge. Oxford bought salt fish, but the accounts of the colleges were in the first place exhibited in a very clumsy, condensed and uninstructive form, and next, many of them have disappeared.

Haberdens appear to be ordinary salt cod. They are bought by the hundred of 120, the long hundred, and probably, as a rule, at Stourbridge fair, for I frequently find notes of the purchase of fish at this renowned mart. They are also found by the warp or couple, and occasionally by the burden, forms which were exceedingly common in earlier years. As they and some other kinds are purchased by tale, they may have greatly varied in size. At the same time, certain entries of salt cod, under this name, are dearer than haberdens in the same year.

The price of haberdens is generally stationary on the decennial averages of the first forty years; the fluctuations, during the period represented, when the prices are taken in this manner, being only a few pence. Then the price steadily rises for the next forty years. For the next twenty it is unchanged. During the last twenty it rises again, the highest average being recorded in the last decade.

In the first forty years the hundred of haberdens ranges from 50*s.* to 73*s.* 4*d.*, the lowest and highest prices registered, i.e. from 5*d.* to 7⅓*d.* the fish. None of the salt fish purchased by tale are so cheap as these prices, and most of the entries which I have discovered under the name of salt fish are in the first forty years. But it is quite reasonable to believe that purchases in bulk were much cheaper than small ones effected as occasion arose. In the later years the price is

high, in 1628, in 1638, in 1640, in 1644–6 inclusive, and in 1653. From 1652 to 1683 inclusive, with the exception of the year just referred to, haberdens are uniformly at 83*s.* 4*d.* In 1684 they are 76*s.* 6*d.*, and then for four years again at 83*s.* 4*d.* Then in 1689 they rise to 95*s.* 10*d.*, and for eight years, i.e. during the war with France, are at 100*s.* During the last five years they drop to 83*s.* 4*d.* again. I think it clear that the prices of 1653, and those of the eight years just referred to, were due to the wars with the Dutch in Cromwell's time and with the French in William's. It is likely that there was a fairly steady and recognised price at which this produce was sold in time of peace, that variations in size were less marked than in other kinds, and that high and low prices, except during years of naval war, are to be assigned to a bad fishing season, or storms.

But the case is different with ling, sometimes called organ or great ling. These fail me for twelve years, and of the 108 years in which I have evidence, nineteen are of Oxford *salsamenta*. I do not infer that these salsamenta were the largest fish, for the price is generally lower than that of the Cambridge great ling. Both however were bought at Stourbridge fair or in London, and therefore must be considered apart from the cost of carriage, this being constantly a separate item in the accounts.

The price of ling rises in the same manner as that of haberdens does, but in not so marked a degree. In the second decade it is higher than any except the seventh and the last, while haberdens are cheapest in the second, though they are dear in the seventh. Again, the lowest price of ling is in the sixth decade. But here the information is scanty and insufficient, and probably is not of the largest kind. It may be that during the troubles the far deep-sea fishing was not very vigorously practised. Towards the end of the period, indeed for thirty years, the price is stationary, the evidence being almost exclusively from King's College, Cambridge. In the last decade however the price is considerably exalted,

especially during the time that war was going on between France and England. In the last year again the price is greatly heightened, and probably from the same cause. When ling is described as old, it generally stands at a higher price than when it is entered as new. It is probable that the green fish of the accounts are to be identified with new ling. I conclude that the store was more certain to keep sound if it had been thoroughly dried. On the whole, the price of great ling is almost five times higher than that of haberdens.

The accounts also give entries of small or middle ling. These are found pretty regularly up to 1644, after which date only three entries have been discovered. It is perhaps the case that not only was the use of salt fish lessened as time went on, and more regular supplies of other provisions were forthcoming, but that the market distinction between small and large was not maintained. Speaking generally, the three values of salt cod stand in relation to each other in the proportion of one, five, and three. The island fish of 1587 and 1588 at 90*s.* and 120*s.* are plainly the same as middle ling, while the salt cod of 1583, 1584, 1596, 1602 and 1633, and the salt fish of 1585, 1588 and 1598, are the same as haberden; the average price being 66*s.* 11*d.* In one year, 1655, I find an entry of Nassy cod, a designation which I have not found before. The rate by the hundred is 90*s.* Green fish are found occasionally, and are a little dearer than middle ling. Salt fish by weight is found at 2*d.* a pound in 1685 and 1699, for the Cuckfield stone is a clove or nail.

There are also, in the earlier period especially, a few purchases of salt fish singly. Eleven entries give an average of 1*s.* 3½*d.* The price is probably due to occasional purchases. Now and then purchases of 'cod' are recorded, at prices which seem to suggest that the fish was fresh. Generally they cost 1*s.* 6*d.* each, but they are found as high as 2*s.*, and even 6*s.* and 6*s.* 8*d.* The high-priced articles are bought, with other fish, for Lord Spencer's table.

HERRINGS. This kind of fish, once so common an article

of diet, has now become comparatively rare. White herrings by the barrel are purchased generally by Magdalen College, Oxford, and frequently entered up to 1640, after which date they are very rare. Only forty-four years are represented, all but one of these being precedent to 1641. From a note in 1593, it appears that a barrel of white herrings contained 2¼ mases, or mazes, and if we can rely on the price of herrings by the hundred in the same year, the mase must have contained about 500 fish. The price of the barrel fluctuates between 17*s.* 10*d.* in 1583 and 50*s.* in 1639. I have ventured on printing such decennial averages as are to be found, for I believe that the general average, including as it does one decade of higher prices, indicates with fair accuracy what was the market price.

White herrings are also sold by the hundred, i.e. the hundred of 120, both at the beginning and end of the period. Here again the decennial averages, in so far as they are forthcoming, designate what I believe were the ordinary market prices with sufficient correctness. Naturally the fish would be cheaper by the barrel than by tale.

I find in the first twenty years of the period, divers entries of herrings by the mase or maze. Eleven such entries give an average of 12*s.* 1½*d.* Six entries of red herrings by the cade give an average of 13*s.* 4*d.*, three of the quotations being considerably later. These prices confirm the suggestion made in vol. iv. p. 527, that the mase and the cade contained the same number of fish.

The cade of smoked or red sprats is also found. Eight entries of these fish give an average of 2*s.* 11*d.* They are found from 1584 to 1652. Sprats are also found in the earlier part of the period by the hundred. The average from eight entries is 6*d.*, and therefore the cade must have held about 500 of the fish, i.e. the cade was a tale as well as a measure, and the cade of sprats contained as many fish as a cade of red herrings.

SALMON. Fifteen entries of apparently fresh salmon

between 1585 and 1690 are found in my accounts. The price varies greatly, from 1*s.* 8*d.* in the first year to 25*s.* in 1690. But I suspect that the lower-priced articles are salt, and that four of the entries should therefore be referred to a second series, which I shall presently refer to. The high-priced fish of 1594, 24*s.*, is purchased in London for the Star Chamber feast. That of 1599 at 13*s.* 4*d.* is bought by Lord Spencer, as are also one at 12*s.* and two at 9*s.* 6*d.* in 1601, and four others in 1602, at 20*s.*, 13*s.* 4*d.*, 13*s.* and 13*s.* respectively. In 1621 the same nobleman buys at 12*s.* In 1635 King's College, Cambridge, entertains the Prince Palatine and gives 13*s.* for a fish. In 1640 Winchester College buys four fish at 5*s.* 11*d.* each, and in 1641 two are bought at Rochester at 13*s.* 9*d.* Lastly, in 1690 New College in Oxford buys three fish at 25*s.*, 8*s.* and 10*s.* It will be evident therefore that fresh salmon was very dear in the seventeenth century. The lowest prices are at Winchester, but salmon swarmed in the Itchin. In 1691, Houghton gives fresh salmon at Berwick at 2*s.*, and fresh cod at 6*d.*

There are seventeen or nineteen years in which salt salmon occur, if we include those low-priced entries which are not specially designated as salt, or omit them. On the former number the price varies from 2*s.* 6*d.* to 9*s.*, or an average of 4*s.* $4\frac{8}{4}d.$ nearly. But the average of fresh salmon is 13*s.* $7\frac{1}{4}d.$ The fresh fish is therefore more than three times as dear as the salt. I have only found two entries of salmon by the barrel, in 1586 and 1587, at 52*s.* and 80*s.*, both purchased by Lord North. Salmon at Gawthorp, always salt, is generally dear.

I have also found nine entries of salt sturgeon by the keg, the first in 1594, the last in 1698. The average is a little less than 20*s.* On two occasions, on the feast to the Prince Palatine, sturgeon is bought by the 'joule.' I have not found this quantity or part (if it means, as perhaps it does, a 'head and shoulders') before.

It still remains that I should deal with some entries of

other kinds of fish. They generally occur in the household books of private families, especially in those of Lords Spencer and North, and for occasional feasts, such as the Star Chamber banquets.

Eels are either fresh or salt, the prices of both being very various. In the few entries which have been found, the average of the former is 5¾*d.*, of the latter nearly 8¾*d.* There are also two entries from Lord North's accounts of eels by the cagg or scagg, which seems to be the same with the gag, vol. iv. p. 532. The average is 6*s.* 5*d.*, and if the measure is one by tale, and as before was of six eels, the fish was large and probably of foreign origin, such as those described in vol. iv. p. 533 as Holland eels, and there quoted at the highest price.

I find four entries of the price of soles by the pair, all for Lord Spencer, the average being 1*s.* 8*d.*; two entries of mackerel by the dozen, at 3*s.* in 1602, and at 7*s.* in 1698, the latter being in London, and the quotation in July; three entries of turbot, all in 1594, two being at 7*s.*, the other at 8*s.* In 1604 Lord Spencer gives 7*s.* 6*d.* for three plaice, in 1614 Caryll at Harting pays 4½*d.* for the same fish, but Wormleighton is far from the sea, Harting near it. In 1602 Lord Spencer gives 4*s.* 6*d.* for one conger and 6*s.* for another, and 1*s.* 8*d.* for a thornback. A skate in the same year is bought in October for 7*s.* 6*d.* and in 1604 for 5*s.*, while in 1697 nine of this fish are purchased in London at 6*d.* each. In 1601 the same nobleman gives 9*d.* for haddock, and in 1602 11*d.* and 1*s.* He pays 5*d.* and 8*d.* for whiting in 1602, the fish costing 1½*d.* in London in 1697. Smelts are 3*s.* 4*d.* the hundred at Wormleighton in 1604, 4*s.* 6*d.* at London in 1697, the latter being designated as large. These particulars will indicate that sea-fish was infrequently supplied and was dear at inland places.

As regards fresh-water fish, I have found trout three times, early and late, at 4*d.*, 4½*d.*, and 6*d.*; tench early at 4*d.*; perch at 9½*d.*, also early; and carp late at near 3*d.* There are also a

few entries of pikerell and pike, the former at 1*s.* 5*d.*, the latter at very various prices. In 1648 a pike is bought for 10*s.* by King's College, Cambridge, and must have been a very large fish, 30 lbs. or upwards, even at that dear time. In the next year the College pays only 1*s.* 10*d.* In 1651 it pays 3*s.*, in 1663 3*s.* 6*d.* In 1691 a pike is bought at Cuckfield for 5*s.* 9*d.*, and we are told that it weighed 20 lbs., or nearly 3½*d.* a pound. But it is probable that these purchases are exceptional, and that both corporations and private persons supplied themselves with fresh-water fish from ponds and stews.

There are a few prices of lampreys. This favourite fish of our ancestors always commanded a high price. All the purchases are made on Lord Spencer's account. In 1599 he buys six at 6*s.* each, and six at 2*s.* 6*d.*, the former in March, the latter in April. In 1600 he buys three at 6*s.* in February; in 1601, twelve at 2*s.* in April; in 1602, two at 2*s.* in March. It seems then that the season for this fish was the early spring, and that the price or the size greatly varied.

SHELL-FISH. I find lobsters and crabs, crawfish, crayfish, prawns, cockles and oysters. In 1599 Lord Spencer buys seven dozen lobsters at 11*s.* 5*d.* the dozen. In 1602 he purchases twelve 'pots' of lobsters and crabs at 20*s.* the pot, and 200 crawfishes at 20*s.* the hundred. In 1627, four lobsters are bought at Mendham at 7*d.* each. In 1686, 12 lbs. of lobsters are bought in London at 4*d.* the lb., and in 1697 in the same place four large lobsters at 2*s.* each. Prawns cost 9*d.* the hundred in 1614 at Hastings, and 10*d.* in 1686 at London. Cockles are bought at 4*d.* the hundred in 1614.

Oysters were no doubt very extensively purchased at places near the sea and near the beds. The fellows of Winchester consumed very large quantities of them. But, as I have had more than once to observe, the household books of Winchester College have strangely disappeared. Oysters are also found occasionally elsewhere. They are bought by the bushel and by the hundred, at Winchester by the pottle at first, and by the hundred or thousand sub-

sequently. The first Winchester account is from 1640 to 1645 inclusive, the second from 1684 to 1693 inclusive.

Within the last forty or fifty years, the muddy seashore in Hampshire and Sussex, from beyond Christchurch in the west to Selsey Bill eastward, swarmed with oysters. They could be purchased, as I have often purchased them, at the rate of a few shillings the bushel, and easily fattened on barley or oatmeal, after being laid in natural or artificial sea-water. They were similarly plentiful on parts of the coast and most of the creeks of Kent and Essex, and were cheap because they were so abundant that the cost of dredging or even of collection was nearly all the charge which entered into the price. Among the many projects of Sir Hugh Middleton was one which he carried out at Brading in the Isle of Wight, where he established oyster breeding-beds, which are still in existence and still at work, affording as I am told the greater part of the young oysters which are transferred to Whitstable and elsewhere, and matured in these localities. For some unexplained reason, the natural breeding of oysters, except in some favourable localities, seems to have been suspended or become abortive for many years past. I have heard the fact or allegation explained by the frequently chill weather of the early days of July, when the oyster spawns.

The records of Winchester seem to indicate a close time for oysters, or at least one in which they were inferior or unwholesome. Very few are purchased at other periods of the year than the six months from September to March. Thus in 1640 Winchester buys twenty-five pottles in the first six months, and only one for the rest of the year; in 1641 thirty-seven for the first six months, nine in April, and one in September. I conclude therefore that the old rule that oysters should not be eaten in any of the months without the letter *r* in it, i.e. in May, June, July and August, was acknowledged and acted on in the seventeenth century. The earlier domestic accounts of Winchester are carefully kept by

quarters of the year, the later ones do not distinguish the date of the entries so accurately.

I have taken, though with great misgivings, the pottle of Winchester to mean the fourth of a bushel. I suspect however that it is a local measure of much larger dimensions, and to be probably a willow basket which was very little short of a bushel. This view seems to be supported by the price during the second register of Winchester College for the ten years 1684–1693 inclusive. During this time the price greatly varies. In 1684, they are 6*d.* a hundred; in 1685, 8*d.*; in 1686 and 1687, nearly 1*s.*; in 1688, 1*s.*; in 1689 and 1690, 6*d.*; in 1691 and 1692, 8*d.*; in 1693, again 1*s.* During these ten years the College accounts for the purchase of 23,300 oysters. In the six years of the earlier account, 1640–1645, it accounts for 137 pottles; and if I can conclude from a solitary entry in 1641, the pottle must have contained about four hundred oysters. It is very possible, then, that I have exaggerated the Winchester price during these six years. Perhaps hereafter some one may discover what the Winchester measure was.

The following tables contain—I. the annual averages of haberden and great ling, or salsamenta; II. the decennial averages of haberden, great ling or salsamenta, small ling, herrings by the barrel and by the hundred, and oysters by the bushel and hundred. In the sixth column of the last table the accuracy of the decades 1633–1642, 1643–1652 depends on the interpretation which I have given of the Winchester pottle, which is, I repeat, suspicious.

Average Price of Fish.

	Haberden, Cambridge. *c* = 120.		Great ling, or organ. *c*.				Haberden, Cambridge. *c*.		Great ling, or organ. *c*.		
	s.	*d.*	£	*s.*	*d.*		*s.*	*d.*	£	*s.*	*d.*
1583	73	4	16	0	0	1615	66	8	17	4	0
1584	70	0	12	0	0	1616	66	8	16	0	0
1585	53	4	12	0	0	1617	66	0[3]	10	1	2[2]
1586	66	8	16	0	0	1618	56	0	13	6	8
1587	69	0	14	0	0	1619	64	6[4]	15	0	0
1588	65	0	12	0	0	1620	61	6	15	5	0
1589	58	0	14	0	0	1621	54	0	20	0	0
1590	64	0	20	0	0	1622	71	4	15	0	0
1591	63	0	18	0	0	1623	60	0	27	0	0
1592	60	0	14	0	0	1624	60	0	12	5	0[3]
1593	57	4	16	0	0	1625	68	0	12	0	0
1594	70	0	18	0	0	1626	70	0	12	10	0
1595	73	4	20	0	0	1627	67	2	24	0	0
1596	66	8	20	0	0	1628	87	6	14	0	0
1597	60	0	20	0	0	1629	.....		16	13	4[2]
1598	60	0[1]	.....			1630	68	0	12	10	0
1599	50	0	20	0	0	1631	68	0	13	10	0
1600	66	8	24	0	0[2]	1632	72	0	23	10	0
1601	61	8	15	0	4[2]	1633	68	0	13	0	0
1602	60	0	14	5	0[2]	1634	64	0	12	0	0
1603	50	0	18	0	0	1635	66	0	12	0	0[2]
1604	63	4	14	16	8[2]	1636	65	9	12	0	0
1605	65	0	11	0	0[2]	1637	68	4	24	0	0[2]
1606	64	6	13	3	4[2]	1638	85	0	19	12	3[2]
1607	61	0	18	15	0[2]	1639	70	0	21	0	0
1608	66	0	13	0	0[2]	1640	82	6	15	10	0
1609	72	0	24	5	0	1641	74	8	18	0	0
1610	66	6	16	11	4[2]	1642	76	8	16	0	0
1611	53	0	20	0	0[2]	1643	75	0	12	8	0
1612	70	0	17	0	0[2]	1644	88	10	15	0	0
1613	63	8	14	10	0[2]	1645	85	2	13	10	0
1614	66	8	17	4	0	1646	91	8	.....		

[1] 'Salt fish.'
[2] Salsamenta, Oxford.
[3] Theydon Gernon.
[4] Oxford.

	Haberden, Cambridge. *c.*	Great ling, or organ. *c.*		Haberden, *c* = 120. Cambridge.	Great ling, or organ. *c.*
	s. d.	*£ s. d.*		*s. d.*	*£ s. d.*
1647	.....	.....	1675	83 4	18 0 0
1648	75 0	16 0 0	1676	83 4	18 0 0
1649	76 0	16 0 0	1677	83 4	.....
1650	.....	.....	1678	83 4	18 0 0
1651	76 0	.....	1679	83 4	18 0 0
1652	83 4	.....	1680	83 4	18 0 0
1653	100 0	20 0 0	1681	83 4	18 0 0
1654	83 4	18 10 0	1682	83 4	18 0 0
1655	83 4	20 0 0	1683	83 4	18 0 0
1656	83 4	.....	1684	76 6	18 0 0
1657	83 4	13 10 0	1685	83 4	18 0 0
1658	83 4	14 2 6	1686	83 4	18 0 0
1659	83 4	.....	1687	83 4	18 0 0
1660	83 4	30 0 0	1688	83 4	18 0 0
1661	83 4	18 0 0	1689	95 10	18 0 0
1662	83 4	18 0 0	1690	100 0	18 0 0
1663	83 4	18 0 0	1691	100 0	18 0 0
1664	83 4	18 0 0	1692	100 0	18 0 0
1665	83 4	.....	1693	100 0	22 10 0
1666	.....	.....	1694	100 0	22 10 0
1667	83 4	.....	1695	100 0	27 0 0
1668	83 4	18 0 0	1696	100 0	27 0 0
1669	83 4	18 0 0	1697	100 0	27 0 0
1670	83 4	18 0 0	1698	83 4	18 0 0
1671	83 4	18 0 0	1699	83 4	18 0 0
1672	83 4	18 0 0	1700	83 4	18 0 0
1673	83 4	18 0 0	1701	83 4	18 0 0
1674	83 4	18 0 0	1702	83 4	27 0 0

Decennial Averages.

	Haberden, Camb. *c* = 120.	Great ling, or organ. *c.*	Ling, small or middle.	Herrings, white, barrel.	Herrings, *c.*	Oysters, bushel.	Oysters, *c.*
	s. *d.*	£ *s.* *d.*	£ *s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*d.*
1583–1592	64 3	14 16 0	6 17 0	21 1	2 8	.....	$7\frac{1}{2}$
1593–1602	62 7	18 7 3	7 14 8	27 5	3 $6\frac{1}{2}$	2 0	$8\frac{3}{4}$
1603–1612	63 2	16 13 2	8 1 0	28 3	3 $7\frac{1}{4}$	2 0	9
1613–1622	63 8	15 6 1	9 8 4	33 10	2 $8\frac{1}{2}$	.....	$7\frac{3}{4}$
1623–1632	69 0	16 17 10	11 10 7	37 7	.....	.....	.....
1633–1642	72 1	16 6 3	10 13 9	33 9	.....	6 $2\frac{3}{4}$	5
1643–1652	81 4	14 11 7	10 10 0	.....	.....	6 $11\frac{1}{4}$	$4\frac{1}{2}$
1653–1662	85 0	19 0 4	18 0 0	38 8	2 4	2 4	.....
1663–1672	83 4	18 0 0	12 0 0	.....	.....	2 6	.....
1673–1682	83 4	18 0 0	.....	.....	.....	3 $4\frac{1}{2}$	.....
1683–1692	88 0	18 0 0	.....	.....	3 $8\frac{3}{4}$	.....	$8\frac{1}{2}$
1693–1702	91 8	22 10 0	12 0 0	.....	4 $4\frac{1}{2}$	3 3	12
Gen. Average	75 7	17 7 $5\frac{1}{2}$	10 13 6	30 1	3 $3\frac{1}{4}$	3 7	$8\frac{7}{8}$

CHAPTER XVI.

ON THE PRICE OF SALT.

In my earlier volumes I have treated this article under the head of agricultural materials, because in the economy of medieval agriculture and consumption, and in the total absence of winter roots and artificial grasses, the use of salted provisions was necessary during the winter months. Now although the seventeenth century had only very imperfectly developed the newer agriculture, great progress had been made, English husbandry had begun to avail itself of Dutch inventions and Dutch instruction, and the powdering tub, stored at Martinmas, had ceased to be the all-important resource of the English householder.

Salt was principally procured by solar evaporation, and it was not till the conclusion of the seventeenth century that the great natural deposits of Worcestershire and Cheshire began to be seriously worked for trade purposes. Houghton notes that in his day (1691–1703) these beds were made to contribute supply. This is I think confirmed indirectly by the names brown, black and grey given to certain kinds of salt, these being frequently dearer than white. Our ancestors appear to have thought that these discoloured products were stronger and more suitable for preserving meat and fish than those which it called white and bay. There are a few entries of fine salt, which bears a higher price than the others.

Salt is bought most frequently by the quarter and its subdivisions, and often in large quantities. Small purchases are

generally at higher rates, occasionally at much higher, than the year's or quarter's stock costs. Thus, for instance, in 1651 King's College buys its stock of three quarters two bushels at an average of 24*s.* 3*d.*, but a small quantity at 32*s.* I infer therefore that the stock of salt was generally bought at Stourbridge fair, and I think it most probable that the Oxford Colleges, though not so conveniently within the range of this important mart as Cambridge was, like the rest of England, bought the year's stock there.

Besides the quarter, I occasionally find the wey of five quarters, as in 1596 and 1677. In one year, 1588, I find the hundred, though I am clear that this is not the hundredweight, but is either to be identified with the wey, or is some undiscovered quantity. New College, in the later part of the period, buys by the sack of four bushels, the quantity being defined. At Worksop, and twice at Gawthorp, salt is bought by the load; and in the former place the quantity is called a horse-load. Once at Oxford (1630) it is bought by the barrel, which appears to be the same quantity as the sack. Again, on one occasion it is purchased by the hoop (1600). In earlier times this measure seemed to be the bushel, but the price seems to preclude this interpretation here. Shuttleworth of Gawthorp buys by the local met, of which it seems that six went to the quarter, and by the crannock, with its sub-division the warue. The crannock is common in the thirteenth century as a Welsh and Irish measure, and is the same as the quarter, except in the case of oats, when it held sixteen bushels. The identity of the crannock and the quarter is perhaps confirmed by the price.

Purchases of salt for store purposes are most likely made in the autumn, and so the produce of one year figures in the charges of the next. The demand might be fairly anticipated, and the price will correspond to the supply. A glance at the purchases will illustrate the above. Thus for example, in 1593, 1594, 1595, 1599, King's College purchases exactly the same quantity for the year's consumption. Of course,

if the price were not greatly raised but there was a suspicion that it would be, the corporation would, as in 1596 and 1597, make exceptionally large purchases, and by holding its stock, need less for the following year. The stock of salt was kept under lock and key in its own chamber or closet.

The statement which I have made before, that the price of salt is a rough measure of the solar heat of the previous season, is borne out by the records of salt prices. It will be constantly found that the price of this article rises in the year following one of high corn prices, and this I conclude, for the reason given above, that the purchases were made late in the year. Thus the bad harvest of 1596 is reflected in the price of salt at Cambridge in 1597. These facts are modified in so far as the salt consumed is foreign, and the price is therefore less affected by the conditions of English weather and the amount of solar heat. The price of salt will also, if this contention is admitted, help to assist in the interpretation of the question whether prices of corn are to be assigned to inclement weather, or to that gradual stiffening of all agriculture prices which we shall see, when the results are tabulated, was a general characteristic of the seventeenth century.

There is no year in which the price of salt is wanting. But the difference in price between the purchases in places which are near the sea and water-carriage and those which are remote is so marked, that I have, as in the case of sea-coal in an earlier chapter, drawn up a double column, the first of Eastern, the second of Midland prices. The averages of the first are derived from the Eastern counties, and especially from Cambridge. In them I include such records from London[1] and Eastern ports as imply easy water-carriage. Oxford and other Midland localities supply the facts for the second column. When, at or about the middle of the seventeenth century, the stretch of difficult Thames transit by water between Burcot

[1] London prices include an octroi duty, under the name of cranage, of five per cent. levied for 'the Lord Mayor,' &c. This was a 'liberty' which the city had or took.

pier and Oxford was rectified by the Act of Parliament (21 Jac. I. cap. 32), the channel being deepened and locks constructed, the cost of carriage to Oxford becomes lessened, and the difference between the two districts is less marked. Water-carriage by the Thames, as I shall show hereafter, was very cheap, and regular communication a great convenience[1]. The difference of price then I conclude, taking the Oxford purchases mainly into account, is due almost entirely to the cost of carriage to the Oxford market, where the article seems to have been uniformly bought.

Eastern prices fail me for eleven years out of the whole period, Midland for eighteen, the principal gap in the former being found at the end of the first quarter of the seventeenth century, while the broken and slovenly accounts at Oxford explain the deficiencies in the last quarter of the same century for the second set of averages. Winchester and Eton rarely supply entries. The salt required for table and kitchen was obtained as need arose by the manciple and accounted for under a general head.

There is only one year under the first decade in which Eastern prices are considerably raised. This is in 1586, a dear year for corn. The specially dear year in Oxford is 1585, which was also a dear wheat year. In the next decade, the specially dear years are, for the East, 1597 and 1598, while in the Midland places, the five years 1596–1600 are years of exalted prices. In the next, the Eastern prices are at the lowest of the whole period. But the Oxford and other Midland rates are slightly rising over the earlier average. During the next ten years, prices continue to rise, more in the East than elsewhere, the general average being considerably affected by a very high price in 1621 at Theydon Gernon, the only Eastern locality which gives me a quotation, Cambridge failing from 1620 till 1631, and the entries being derived from other places. In

[1] There have been of late years a good many projects suggested for modifying the channel of the Thames from Oxford downwards. It is to be hoped that the Conservancy will examine into what this part of the river was before the engineering of the seventeenth century was carried out.

the fifth decade there is very little change in the Eastern prices, but there is a further increase in the Oxford rates, the rise in three decades being progressively a little more than two shillings the quarter decennially. In the decade 1633–1642 in both districts the rise is 2*s.* 11*d.* and 3*s.* 6½*d.*, the five years 1636–1640 being the dearest in the East, and the five 1634–1638 being the highest at Oxford, occasional purchases being made at unheard-of rates, at from 40*s.* to 50*s.* the quarter.

In the decade 1643–1652 the same facts are exhibited as in the prices of other articles. There is only one year of moderate cheapness, 1646, the dearest at Cambridge being 1643, and at Oxford 1644. During this part of the period there is an entry from Eton, where the price is nearly the same as at Cambridge. Now though England was at this time convulsed by civil war, there were no foreign difficulties, and no reason to believe that such an industry as salt-making at home was disturbed or impeded. The rise during this decade at Cambridge is 4*s.* 8*d.* the quarter, and in Oxford 4*s.* 4½*d.*, and every year is represented at both these localities.

During the next forty years, the price, falling considerably, is for the first decade 3*s.* 2*d.* a quarter cheaper at Cambridge, 6*s.* 11½*d.* per quarter at Oxford. In the next ten years there is a further fall of 1*s.* 2¾*d.* at Cambridge, 1*s.* 4¼*d.* at Oxford; in the next a fractional fall at Cambridge, and 2*s.* 5¼*d.* at Oxford; while in the next there is a slight rise at Cambridge and one of 1*s.* 8¾*d.* at Oxford. In the last decade of all the price is nearly double that at Cambridge in the previous ten years, and at Oxford more than double. But in 1694 and 1698 Parliament had put special taxes on salt; in the former year 16*s.* a quarter on foreign, 8*s.* on English produce, in the latter 21*s.* 4*d.* a quarter on English salt up to December 24, 1699 and 26*s.* 8*d.* afterwards, and 42*s.* 8*d.* and 53*s.* 4*d.* on foreign. This tax continued till 1732[1].

[1] These duties were probably intended to be prohibitive of the foreign article. Even if English produce alone was bought, the prices seem to show that the duty was at least partially evaded.

The general average at Cambridge is 18*s.* 4½*d.* for the whole period, at Oxford 23*s.* 8¾*d.* for the same. If however we omit the last ten years, when the price is heightened by excessive taxation, the average for 110 years at Cambridge is 16*s.* 0½*d.*, and at Oxford 22*s.* 0¼*d.* This difference I think may be taken as a general estimate of the cost of carriage by the quarter from London to Oxford, about 120 miles by water, and less than half by land. Now salt was by statute[1] declared to be 56 lbs. to the bushel, and a quarter would therefore be four cwts. It would therefore cost 30*s.* to convey a ton of such goods as salt from London to Oxford, or about 3*d.* a ton per mile by water, or nearly 6½*d.* by land.

From 1668 to 1693 inclusive, the price of salt at Cambridge, with very trivial variations, is unchanged at 18*s.* 8*d.* the quarter. It is difficult to resist the conclusion that these are contract prices, and that the corporation of King's College must have arranged with some dealer for a regular supply at a fixed price. Prices at Oxford, as far as the records of expenditure survive, are nearly as stationary.

In vol. iv. p. 410 it will be seen that the average price of salt from the time when I assumed that the rise in prices certainly began (1541) till 1582 was from 4*s.* 9*d.* the quarter to 10*s.* 10¾*d.*, or, if one takes the last twenty-two years, it stood at 12*s.* 8*d.* From this price, as compared with the averages given in the tables at the end of this chapter, it will be seen that it was not till about 1636 and onwards that prices steadily went upwards and remained at a higher level.

But in the tables contained in my earlier volumes, I drew my averages of salt from all sources of information, of course principally from Cambridge and Oxford. Hence to make the parallel complete, one should unite the Eastern and Midland prices. This would give an average of 21*s.* 0¼*d.* for the whole period, or omitting the decade during which the war taxes were put on, of 19*s.* 0¼*d.* Now for the last forty-two years of vol. iv. (p. 292) the average price of wheat was 13*s.* 10½*d.*,

[1] 7 & 8 Will. III. cap. 31.

or if one takes only the last twenty-two years, 14*s.* 9*d.* But during the hundred and twenty years of the present period, the average price of wheat is 41*s.*, that of salt as I have said, including the taxes, 21*s.* 0½*d.* The price of wheat then is raised two and three-quarter times on the narrower comparison, that of salt only about two-thirds above the sixteenth-century rate of 1561–82.

The urgency of demand and the growth of population, probably fed on inferior food, and chiefly increased in the north of England [1], go far to explain the discrepancy. The real, but partial and local improvements in agriculture, aid us a little more, for they point out how it was that a part of this increased population had to pay a higher rate for wheaten bread. The demand of those who used it was constant. The numbers of such persons increased. The supply was not, owing to causes referred to in my chapter on the progress of agriculture, equivalent to the demand, and Gregory King's law was consequently in full and regular operation. But in the price of salt, demand and supply, due allowance being made for the growth of population, could easily be put *in equilibrio*. If anything, the demand declined with the partial but real improvement in agriculture. For it is very likely that the necessity of salting meat was diminished, and it seems clear that the use of salted fish became more infrequent. It is certain too, that the trade in salt herrings and pilchards with the Mediterranean ports had not been as yet developed to any great extent.

I cannot therefore but conclude that the register of the price of salt is peculiarly instructive. It was a necessary of life, one which the consumers would be glad to stint, and no doubt did, but in what is after all an infinitesimal percentage; for the consumption of the rich and even the middle classes, especially in the seventeenth century, was trivial in amount, by that which the mass of the population required. We may be sure that the peasantry in the agricultural counties, the miners of northern England, and the weavers in the towns had but little

[1] Supra, p. 79.

to spare for the products of the new agriculture. And although it is impossible, until one is able to exhibit the whole results of these records of prices, to draw general and particular inferences, it may be permitted to dwell a while on the price of an article, which any one who knows anything about social economy in the seventeenth century must allow to be in the highest degree suggestive.

As it appeared to me to the purpose to draw up the double set of annual averages from the Eastern and the Midland counties, I have not included in these tables the few prices which come from the North. I have already stated that in my opinion the crannock is here identical with the quarter, and that six of the Shuttleworth mets are equal to the quarter, the met being divided into two pecks, and eight eighendoles or eyttyndales. Taken at these rates, the Gawthorp crannock of 1584 at 14*s.*, that of 1586 at 16*s.*, that of 1589 at 15*s.* 6*d.*, and that of 1590 at 15*s.* 5*d.*, are not exceptional. So again the quarter at Kirkby Stephen, Westmorland, in 1585 does not differ materially from some of the purchases made at Cambridge in this year, 17*s.* 10*d.* as compared with 18*s.* Taking six mets to the quarter, salt in 1591 and 1592 is bought at Gawthorp at an average of 10*s.*, in 1598 at 16*s.*, in 1599 at 20*s.*, in 1600 at 22*s.*, and in 1601 at 18*s.* 9*d.* In 1602 it is purchased at Gawthorp by the load, at an average of 12*s.* 3*d.*, and this probably was something less than a quarter. In 1610, it is 11*s.* a load; in 1611, 13*s.* 4*d.*; in 1617, 11*s.* 10*d.*, when a 'cart of salt' is also bought at 12*s.* In 1611, at the same place, it is at 24*s.* the quarter of six mets; and in 1620, the last year in which it appears at Gawthorp, there are two inexplicable entries, by the peck and the quarter. The Shuttleworth purchases are generally made in June or July. The Howard accounts give a price of 32*s.* in 1612 and 1613. This is very high, but nearly as high a rate is seen at Oxford in the previous year.

There are one or two entries besides which I have thought would have been deceptive in the general averages. One of these is at Mendham in 1584, where the price paid for a peck

at the rate of 22*s.* 8*d.*, is greatly in excess of other prices in the same place. So are the four bushels bought by Lestrange in 1587, at 28*s.* the quarter. Nor have I attempted to interpret the 'loads' at Worksop. At this place, the hoop of 1600 is half a bushel.

I have as usual appended such entries as Houghton supplies me with at the end of the notes. In 1691 he gives a price by the wey in London, which at five quarters to the wey is 16*s.* the quarter, and another notice of the wey at Newcastle, where it is just half the price. By the quarter it is 18*s.* 3*d.* in 1691, 19*s.* 2*d.* in 1692, 23*s.* 4*d.* in 1693, 29*s.* 11*d.* in 1694, 33*s.* 8*d.* in 1695, and 29*s.* 4*d.* in 1696. These are rather higher than the Cambridge prices, and probably contain the tax, above referred to, which was enacted by the London corporation. Apart from any dues levied on merchandise in London, the price at this port should be lower than elsewhere, for it is certain that all or nearly all the salt was produced at the sea, and therefore could be conveyed by water.

Besides salt by measure and occasionally by weight, there are a few entries collected during the first half of the seventeenth century and a little later of the price of salt stones. These were bought for the pigeon-houses, as I believe rock-salt still is. They all come from the accounts of King's College, Cambridge. I have noted seventeen entries. The price seems to have been exceedingly high, for the lowest price, 1*s.* 2*d.* in 1641, is more than the cost of half a bushel of ordinary salt, bought by the College in that year, while the highest price, 3*s.* 4*d.*, is close to the cost of a bushel and a-half at the same place and time. I conclude therefore that they were either specially ordered, or were only occasionally offered for sale. The average of all the entries is 1*s.* 10¼*d.* The College never bought less than two or three stones, and sometimes four.

The subjoined table is of the price of salt in the Eastern and Midland districts, the principal source of the former being Cambridge, of the latter Oxford. To these are appended the decennial averages.

SALT.—AVERAGES.

	East.		Midland.			East.		Midland.	
	s.	*d.*	*s.*	*d.*		*s.*	*d.*	*s.*	*d.*
1583-4	8	2¼	14	0	1615-6	11	0	17	8
1584-5	10	0	13	10	1616-7	10	0	18	10½
1585-6	15	6½	23	7	1617-8	.....		19	4¾
1586-7	20	1½	17	4	1618-9	8	8	16	0
1587-8	16	4	17	0	1619-20	11	6	18	1½
1588-9	12	8	18	5	1620-1	13	4	18	8
1589-90	12	5	18	5	1621-2	33	4	20	4¼
1590-1	12	8	17	8½	1622-3	.....		23	10
1591-2	.....		15	8	1623-4	13	0	18	0½
1592-3	10	0	15	2	1624-5	.....		18	0
1593-4	10	0	16	9½	1625-6	.....	...	21	6
1594-5	12	1½	17	5½	1626-7	10	2	18	3½
1595-6	17	0	16	3	1627-8	.....		18	6
1596-7	16	0	21	2	1628-9	.....		25	7¾
1597-8	23	5	21	4	1629-30	.....		29	2½
1598-9	22	0	20	8	1630-1	.....		29	7
1599-1600	16	4	19	11½	1631-2	20	9	25	8½
1600-1	14	8	19	4½	1632-3	14	2¾	27	6¼
1601-2	11	4	16	6½	1633-4	14	3¼	21	4
1602-3	11	9	17	0	1634-5	14	0	33	10
1603-4	10	8	17	9½	1635-6	16	6½	28	9¾
1604-5	10	8	16	0	1636-7	19	0	27	10
1605-6	13	4	.....		1637-8	18	8	25	0
1606-7	12	0	20	0	1638-9	19	9½	28	10½
1607-8	11	4	14	8	1639-40	18	10½	22	4
1608-9	11	4	21	8	1640-1	22	2½	25	2¼
1609-10	12	4	18	0	1641-2	15	5	27	6¾
1610-1	.....		18	0¾	1642-3	15	4¼	.....	
1611-2	12	0	20	6¾	1643-4	30	7¼	35	4
1612-3	12	1	23	4	1644-5	25	10	42	2¾
1613-4	.....		24	0	1645-6	19	4	26	0
1614-5	14	0	22	6	1646-7	16	0	23	4

	East.		Midland.			East.		Midland.	
	s.	*d.*	*s.*	*d.*		*s.*	*d.*	*s.*	*d.*
1647–8	21	4	33	4	1675–6	18	8	.....	
1648–9	19	4	26	8	1676–7	18	8	.....	
1649–50	19	3	30	8	1677–8	18	8	20	$6\frac{1}{2}$
1650–1	25	$7\frac{1}{4}$	28	$3\frac{1}{4}$	1678–9	18	8	.....	
1651–2	29	6	30	6	1679–80	18	8	.....	
1652–3	24	2	26	8	1680–1	18	8	18	8
1653–4	22	$10\frac{3}{4}$	31	2	1681–2	18	8	.....	
1654–5	18	4	23	7	1682–3	18	8	.....	
1655–6	23	3	26	8	1683–4	18	8	.....	
1656–7	20	0	22	8	1684–5	21	0	18	8
1657–8	20	0	23	0	1685–6	18	8	.....	
1658–9	20	0	22	0	1686–7	18	8	.....	
1659–60	18	8	21	$1\frac{1}{2}$	1687–8	18	8	.....	
1660–1	18	8	22	0	1688–9	18	8	22	5
1661–2	18	8	20	9	1689–90	18	8	22	8
1662–3	18	8	21	0	1690–1	18	8	21	4
1663–4	18	8	21	1	1691–2	18	8	22	0
1664–5	18	8	25	4	1692–3	18	8	21	4
1665–6	20	0	29	7	1693–4	18	8	.....	
1666–7	19	9	25	0	1694–5	22	8	.....	
1667–8	19	3	20	0	1695–6	28	0	.....	
1668–9	18	0	21	0	1696–7	32	0	44	8
1669–70	18	8	20	0	1697–8	32	0	32	0
1670–1	18	8	20	0	1698–9	40	0	52	0
1671–2	18	8	18	6	1699–1700	39	8	.....	
1672–3	18	8	20	0	1700–1	40	0	40	0
1673–4	18	8	.....		1701–2	40	0	42	0
1674–5	18	8	.....		1702–3	48	0	44	0

Decennial Averages.

	East.		Midland.	
	s.	*d.*	*s.*	*d.*
1583–1592	13	1¼	17	1¼
1593–1602	15	5½	18	7¾
1603–1612	11	9	18	10
1613–1622	14	8¼	20	11¼
1623–1632	14	6½	23	2½
1633–1642	17	5	26	9
1643–1652	23	1	30	3½
1653–1662	19	11	23	4¾
1663–1672	18	9¾	22	0½
1673–1682	18	8	19	7¼
1683–1692	18	11¼	21	4
1693–1702	34	1¼	42	9¼
General Average	18	4½	23	8¾

CHAPTER XVII.

ON THE PRICE OF FOREIGN PRODUCE.

UNDER this head I have collected all the evidence which I could discover of wine, spices, foreign fruits, sugar, tobacco, and rice, for I am persuaded that not only was all sugar consumed in England imported, but that sugar, more or less refined, was of foreign origin also. Had the accounts, for example, at King's College given details, the series would have been complete. But the officials content themselves with giving the grocer's and the vintner's bill, without specifying quantity and price. Not a few of my entries of wine are extracted from churchwardens' accounts. Similarly the wine entries from colleges have been frequently derived from the chapel expenses. The King's College Commons books, more imperfectly preserved than any other of the records of this College, become uninstructive as time goes on. Still I am in hopes that the collections I have made may not be without interest and significance.

It has already been stated, that almost certainly all vegetables, except those of the commonest and poorest kinds, were of foreign origin, at least in the first half of the period before me, and that most of them came from Holland. I have commented on those already, and I refer to the facts in order to anticipate any objection in my reader's mind as to the arbitrary limitation which the present chapter assumes.

WINE. Most of the entries are of retail prices, and of purchases from vintners, who sold by draught. Wine is not,

as in earlier times, regularly laid in by rich corporations in bulk, but bought for special occasions. Such, for instance, are the election feasts at Eton, from which I have obtained most important information. At last the custom arises of buying by the bottle or the dozen bottles. Four of these bottles went to the gallon, though on one occasion I find an entry of small bottles. For the purpose of filling up voids in my series, I have occasionally made use of the dozen purchases. The bottles were very dear, and the price does not include them.

There are three principal kinds of wine, claret, sack, and a sweet wine known as muscadine, muscadell, malmsey. I have assumed that canary, tent, and palm wine are to be identified with this commoner name, as I have occasionally treated sherry as the same with sack. There is also a frequent entry of 'white wine,' generally at the same price as claret, and most likely a white Bordeaux, a kind of Grave, or Sauterne. But I shall refer to this kind as I deal with the evidence in detail. The sweet wine was generally, though not invariably, consumed for religious offices.

The authorities in Oxford University licensed the vintners (as they still do) and regulated their prices. The Eton Fellows made their occasional purchases from the landlord of the Christopher, an inn on the opposite side of the way to the College, and now one of the Masters' houses. At last the Fellows got dissatisfied with the publican's charges, and begin generally to buy in bulk. But the earlier rates are not excessive. Shakspere's two gallons of sack at 2*s.* 10*d.* is not far from the price of his time, being rather lower than the average.

The origin of claret is Bordeaux, that of sack and muscadell is Spain. Hence when the relations between England and those countries were disturbed, or war actually broke out, we might expect to see a rise in the price, other than that which was due to the general stiffening of prices. Such a state of things explains I conclude the great exaltation in the cost of

claret during the last decade, while friendly relations with Spain account for the drop in the price of Spanish wine during the same period. The war of Cromwell with Spain and the close relations between the Stuart kings and Louis XIV will, I presume, account similarly for the dearness of sack between 1653 and 1692. The price of sack between 1653 and 1662 is very high, and there are very few entries of muscadell during this decade.

The prices of all foreign produce were, apart from causes which can be discovered from history, affected by the practice of privateering, and the risks of wreck. Writers of the seventeenth century are full of complaints as to the abuse by neutral and even by nominally friendly nations of rights claimed on the high seas. The Dutch in particular, as far as their trade was concerned, commented with bitterness on the manner in which the English Government winked at or encouraged outrages and even piracies on their merchant vessels, and on the losses which the commerce of Holland suffered from these discreditable practices. Besides, though the famous Navigation Act may have seriously injured the Dutch, it does not seem to have been a great stimulus to the mercantile marine of England. English commerce and English shipping grew, but not so rapidly as to prove that this Act in question could be credited with the result. But in the absence of anything beyond general information, we cannot determine the extent to which fluctuations in price can be assigned to those incidents.

Imperfect and broken as my annual averages are, I am of opinion that the general results may be depended on, that the price of wine rose slowly during the first seventy years of the period, and was enhanced more rapidly during the next forty, though not, except in the case of sweet wine, to a very great extent. It is noteworthy that for some time the price is almost stationary, or marked by very trivial fluctuations. Thus from 1602 to 1626 the price of muscadell is uniformly 4*s.* the gallon, while between 1621 to 1640 claret is never above 2*s.* 8*d.*, and sometimes a little below it. In short, the

price of wine was low, and though I believe it was only very occasionally consumed, it must have been generally kept in stock, and have been generally accessible. Nor do I doubt that the averages which I have drawn, and especially the general averages, indicate the price of wine with sufficient accuracy, that claret, taking the whole period, could be obtained at 3*s.* a gallon, sack at 5*s.* 3*d.*, and sweet wine at 6*s.* 6*d.*

Between 1584 and 1645 there are eighteen entries of 'white wine' given. The average price is a fraction over 2*s.* 5*d.* the gallon. But during the seventy years comprised in this period, by which I mean the years 1583 to 1652 inclusive, the average price of claret is a small fraction over 2*s.* 4¾*d.* White wine is at 3*s.* 4*d.* and 3*s.* 6*d.* the gallon in 1676, red being a little dearer. Other four entries are at the conclusion of the period, when the commercial relations of England and France were interrupted, and Parliament had determined on prohibiting the use of French produce. Besides, red and white wine are frequently identified in the earlier part of the period. I infer then that the white wine, unless it is distinctly said to be sherry, is the ordinary white Bordeaux.

Between 1583 and 1631 there are eight entries of Rhenish wine bought by the gallon, and therefore on draught. The average price is 3*s.* 1½*d.*, and is midway between claret and sack. Beyond the name, there is no further indication of its origin. One in 1670 is at 5*s.* 2*d.*

Between 1602 and 1699 there are fifteen entries of canary by the gallon, at an average price of 5*s.* 8¼*d.* It is found three times in the dear twenty years (1673–92), at 1*s.* 6*d.* the bottle in 1674, at 8*s.* the gallon in 1675, at 7*s.* in 1676. But in the years when it is found, it is practically so identical in price with muscadine or muscadell that I have conceived myself entitled, when the latter is absent from any year and canary is given, to insert it in the table.

Among those wines on draught, I have found Malaga twice, in 1608 and 1609, at 4*s.*; Bastard in 1602, also at 4*s.*; Bacharac in 1648, at 4*s.* 8*d.*; Madeira in 1697, at 6*s.* 8*d.*; Sherry in 1617,

at 3*s.* 8*d.*; in 1615, at 6*s.*; in 1663, at 5*s.* 4*d.*; in 1698 and 1699, at 8*s.* There is also a small purchase of a very high-priced wine at Winchester under the name of Marcesday in 1691 at 14*s.* 8*d.* the gallon, the costliest recorded. Tent is also bought by the gallon in 1683 and 1684 at 12*s.*, and in 1696 at 10*s.* Red and white port are also bought by the gallon at 6*s.* and 5*s.* 6*d.* in 1698.

Wine is also bought by the bottle and the dozen bottles. The first entry of this kind which I have found is in 1607, when a bottle of sack is bought at 2*s.* 3*d.*, and two other bottles of 'wine' at 1*s.* 10*d.* In 1608 another bottle of sack costs 2*s.*; in 1609 two more are bought at 2*s.*; in 1616 and 1618 two more at 1*s.* 4*d.*, all these purchases being made by the Archers of Theydon Gernon. I find no similar entries till 1649, when Master of Yotes Court buys two bottles of Rhenish at 1*s.* 6*d.* I expect that all the Theydon entries are of sack, and that the prices include the bottles which I find from a subsequent entry are debited at 5*s.* 8*d.* the dozen.

From this date purchases by the dozen bottles or a less quantity are frequent. In 1650 Dering buys three at 1*s.* 4*d.* each, and Eton purchases its wine for the election feast in this form: eight bottles of claret at 1*s.* 6*d.*, fifty-eight quart bottles of sack at 1*s.* 10*d.*, and eighteen of lesser size at 11*d.*, these, as the price indicates, being pints. Next year it buys its claret at 16*s.*, its sack at 24*s.* the dozen, purchasing 109 bottles of wine in all. In 1655 Eton buys 104 bottles of claret and sack, and in 1657 102 bottles of canary and claret, the former at 24*s.*, the latter at 10*s.* the dozen. The owner of Yotes Court often buys Rhenish, white, and sack by the bottle, and tells us in 1656 what the bottles and corks cost him. Claret is generally at 12*s.*, sack at 24*s.* the dozen, and the price, deducting bottles is so near that of claret and sack on draught at four bottles to the gallon, that I have considered myself at liberty to give that interpretation to them in the tables.

In 1691 King's College, Cambridge, buys eight dozen of

port at 19*s.* 7¾*d.*, the cost of carriage being included in the price. In the next year four dozen of red port are bought at Henley at 18*s.*, and in 1693 Caryll buys claret and canary at 15*s.* 8*d.* and 24*s.* Red port, white sherry, and canary are thus purchased at London in 1697, red port, sherry, and white port in 1698 and in 1702. Caryll buys two dozen of sherry at 25*s.* White port is found in Oxford in 1684 at 12*s.* The prices seem to indicate that the wine was an experiment.

It was an early custom, and it continued for some time, to purchase small casks or kegs of wine under the name of a rundlet or runlet, and frequently the quantity is given. At Worksop one such rundlet of sack, the measure not being given, is priced at 16*s.* 6*d.* It probably contained about six gallons, for Lord Pembroke generally pays about 2*s.* 8*d.* a gallon for his sack. In 1596 he buys for 22*s.* 8*d.* one said to hold 8½ gallons, where the price is exactly at 2*s.* 8*d.* the gallon. In 1605 the Archers buy a rundlet of Rhenish. Now they give 2*s.* 6½*d.* a gallon for this wine on draught, and at the same rates the rundlet would hold nearly three and a-half gallons, for it cost 9*s.* Next year they buy another rundlet at 9*s.* 6*d.*, and probably at nearly the same price.

In 1609 three rundlets of sack are bought in London, containing respectively 5¾, 6¾, and 6½ gallons. In 1611 another contains 6 gallons. In 1617 Shuttleworth buys a rundlet of canary 6½ gallons, and a rundlet of sherry 6 gallons. In 1624 a rundlet of muscadine holds 11 gallons. In 1627 a rundlet of sack costs 48*s.* 6*d.*, and must have been a larger cask. But sack was worth 5*s.* a gallon this year, which would give about 9½ gallons. In 1661 and 1662 Eton buys two runlets of sack at 64*s.* 6*d.* and 69*s.* respectively, the cask and carriage being included in the former purchase. In 1665 the College buys a runlet of 12½ gallons of sherry for 66*s.* 8*d.*, and this is probably the measure of the other two. This is the last entry of the kind which I have found.

Wealthy individuals and corporations also bought wine by the tun, the hogshead, the tierce, and the piece. Thus in 1583

Lord North buys two and a-half tuns of Gascony at £11 the tun; Shuttleworth in 1584 two hogsheads of white and claret at £4 2*s.* 6*d.*; Wharton of Kirkby Stephen in 1586 buys four hogsheads of claret at £18, and a tun of the same at £40 10*s.* These must have been choice wines. He also has two hogsheads of white at £4 10*s.* In the same year Lord North buys six hogsheads of claret (four to the tun) at £24 the tun, a price which may be contrasted with that given by Wharton. In 1587 Shuttleworth pays 72*s.* 6*d.* for a tierce of claret, and in 1588 88*s.* for a hogshead. In the same year Lord North pays £8 for a butt of sack, and £5 0*s.* 8*d.* apiece for six hogsheads of claret. In 1589 and 1590 Shuttleworth pays £5 a hogshead for white and claret, and next year £8 6*s.* 8*d.* for a tierce and a hogshead, the price per tun being £20. In 1594 a rich London merchant, living in Bassishaw Ward, buys four and a-half tuns of Gascony at £22 10*s.*, and one and a-half hogshead and a tierce of the same wine at a cost of £9 15*s.*

In 1624 Lord Spencer buys two hogsheads of white sack and claret at £7 each, and in 1631 a hogshead of canary and a hogshead of claret at £18 together. A hogshead of claret costs the owner of Mendham £6 13*s.* 6*d.* in 1627, and two hogsheads of sack are bought in 1631 by Caryll at £8 each. In 1632 the same person buys a tun of claret for £18, a hogshead of sack, two of claret, and one of vinegar for £19 12*s.* together. In the next year he gives 90*s.* apiece for two hogsheads of claret.

The next large purchases are made by Eton. In 1661 it buys a tierce of claret in a double cask for 89*s.*, in 1662 another tierce for 82*s.* 6*d.*, in 1663 and 1664 two others at 90*s.* In 1669 I find a hogshead of Aubryan at £12, another of Sauterne at the same price, six tierces of claret at £4 3*s.* 4*d.*, and another of 'wine' at £4. There is a 'piece' of Cawos wine in 1687 at £19, a hogshead of claret bought by Caryll in 1699 at £16, another in 1701 at £15, and a hogshead of 'palm wine,' said to contain 63 gallons, for £35. The London purchases were made by Johnson, a rich shipbuilder of

Deptford, one of whose daughters was married to Lord Lovelace.

Wine purchased by bulk was of course purchased at a far cheaper rate than when bought on draught from the vintner. Thus if the tun contained 252 gallons, Lord North buys in 1583 at less than a shilling a gallon. If the hogshead contained 63 gallons, Shuttleworth's purchases in 1584 are only a little over a shilling a gallon. On the other hand, the tun and the hogsheads at Kirkby Stephen in 1586 are over the market average.

The tierce contained 42 gallons, or a sixth of the tun. Claret, which is not found in 1661 by draught, is cheap by the bottle, but is only a little over 2*s.* a gallon by the tierce. In 1662 it is less than 2*s.*, and in 1663 and 1665 only a little more. Here at Cambridge the rate on draught is 2*s.* 8*d.*, and I conclude that the proportion of a little over 2*s.* to 2*s.* 8*d.* represents pretty fairly the proportion between the two kinds of purchase, in bulk and on draught. I am entirely in the dark as to Aubryan, Cawos, and Palm wine. The first is low-priced, it and Sauterne being a little under 4*s.* the gallon. But I know no more what the piece of Cawos is, than I do the drink. The 'palm wine' of 1702 is dear, being over 11*s.* the gallon in bulk. Nor do I know what Deal wine is, a tierce having been bought at Cambridge as early as 1613 at nearly 2*s.* 5*d.* a gallon.

In the earlier years, hippocras, i.e. spiced and sweetened wine, is found. It is 8*s.* a gallon in 1587, and 6*s.* in 1625. I do not know whether burnt claret, found among the Rawlinson papers, under date of 1636, at Oxford, is something of the same kind.

Brandy, under the name of aqua vitae, is found as early as 1600, when two quarts are bought at an average of 7*s.* 8*d.* the gallon. In 1603 a quart purchased as the former was is at 6*s.* These are Lord Spencer's. In 1612 three quarts are bought by Shuttleworth at 6*s.* 8*d.* the gallon, who also buys a bottle of rosa solis, which is I believe a kind of liqueur,

for 6*s.* 2*d.* These purchases are probably for medicinal purposes.

I have not discovered the article again till 1674, when it is bought under its proper name of brandy in this year, in 1682, 1684, and in 1690, at 4*s.* a gallon. In 1693 it is 3*s.* 6*d.*; but in 1697 it is 10*s.*, and in 1698 and 1699, 12*s.* a gallon. In 1696 Parliament imposed heavy duties on French wine and brandy, on the latter £30 and £60 the tun, according to strength, on the former £25 the tun, in addition to a previous ad valorem tax in 1692 of 25 per cent. This is sufficient to explain the great increase in the price of claret and brandy at the end of the century.

SPICES. The greater part of the information which I have been able to collect as to the price of this foreign produce is from the Commons books of King's College, Cambridge, though occasionally the records of private expenditure have supplied some facts. It was the custom for the authorities at King's College to buy their spices and fruits at Stourbridge fair, or from some wholesale dealers, and enter the bill in aggregate into their annual account. But when they reached the College, they were put into the keeping of some official, manciple or clerk of the kitchen, to be doled out on the feasts when the spice-box was filled and put on table. This official enters in the Commons books, afterwards engrossed, the amount of spice and fruit employed on each occasion, and debits the College with the amount as against his store. The practice continues, though many of the Commons books are lost, till the outbreak of the Civil War, when the custom is interrupted, the supervision becomes slovenly, and ultimately the practice is dropped. The feasts are generally Michaelmas, November 17 (the day of Elizabeth's accession), altered subsequently to November 5, S. Andrew's Day, S. Thomas' Day and the feasts on to the Purification, Lady Day, Easter Day, Whitsunday, Midsummer Day, and S. Bartholomew's Day. Hence to avoid repetition, when there is no change in the price of spices and fruit, I have merely mentioned the

quantities served out on each occasion. Thus for example in 1609, note is taken of eleven of them, at eight of which spice is served, generally of three kinds, cloves and mace mixed, cinnamon and ginger mixed, and nutmeg. These were no doubt in powder, six ounces or half a pound of each, for spice was weighed by apothecaries' weight, and indeed generally bought of such tradesmen, fruits and sugar being purchased by avoirdupois and from the grocer.

PEPPER. From 1583 to 1639 I have fairly continuous accounts of the price of this spice. Thenceforward the entries are very scanty and broken. As in the fourth volume, I have taken a hypothetical weight of a dozen lbs. in order to avoid inconvenient fractions. As might be expected, the price of this article varies exceedingly. Up to 1603 there was practically no English trade with the East Indies, and the supply of Eastern produce was divided between the foreign merchant, the Dutch for instance (who traded with Spain and Portugal even while they were at war with them), and the Turkey or Levant Company, who purchased through the overland route, which the Turks, after utterly destroying it in 1516, were now in various directions seeking to restore. During the early years of the East India Company, the English members of the Levant Company complained bitterly of the mischief which the long sea voyage was doing to the trade with Turkey, and particularly with its market for tropical produce[1].

For the first twenty years or thereabouts then, the price of pepper, and indeed that of similar spices, represents the degree of success with which the English consumer was supplied with an article which in its place of origin is so common that it is worth on the spot little more than the cost of collection, preparation, and packing. The price then, a moderate sum being deducted for this charge, represents mainly freight, risk and profit; and we are informed that when the voyage was made without loss or material delay, the profits were enormous.

[1] Macpherson, ii. 218.

The English traders established factories or depôts in many of those islands which the Dutch had partially occupied, with the effect of seriously compromising the relations between the Governments of each nation, and in the end of grievously injuring the Dutch. In 1615 it was computed that the English Company brought nearly half a million pounds of pepper annually into England, and had reduced the price from 8*s.* a pound (the highest which I have found is 5*s.* 4*d.* in 1569 and 1597) to 2*s.*, at which it certainly stood from time to time at the date of Sir Dudley Digges' pamphlet[1].

It will be seen on turning to the tables at the end of this chapter, and particularly to the decennial averages, that the contention of Digges is fairly substantiated. Three out of the decades are void of information. But while in the first twenty years, there being a quotation for every year, the average price by the dozen is 45*s.* 9*d.*, or 3*s.* 9¾*d.* a pound, the price is reduced to 28*s.* 2½*d.* in the next decade, to 26*s.* 10½*d.* in the fourth, to 22*s.* 9½*d.* in the fifth, and is at 24*s.* 4*d.* in the sixth. In the eighth, pepper is at 20*s.* 4*d.*, in the eleventh at 28*s.* 11*d.*, and in the last at the low average of 17*s.* 8*d.* the dozen. There is therefore no cause for wonder that the land route to Aleppo could not compete against these rates, nor, looking at the price in India, at the enormous profits which the East India Company made, or at the fact that they could afford to spend large sums of money in bribing members of Parliament in order to secure their chartered monopoly, not only against interlopers, but also against Parliamentary criticism.

During one of these periods, 1653–1662, there are three entries of pepper at the prices of 16*s.*, 9*s.*, and 36*s.* the dozen respectively. The first two of these come from Mounthall, where prices are given at 1*s.* 4*d.* and 9*d.* the pound, the latter

[1] According to Mun (1621), the price of pepper in India was 2½*d.* the pound, of cloves 9*d.*, of mace 8*d.*, of nutmegs 4*d.*, at Aleppo 2*s.*, 4*s.* 9*d.*, 4*s.* 9*d.* and 2*s.* 4*d.*, and the selling price of the same articles in England, (I presume at the Company's wholesale sales), was 1*s.* 8*d.*, 6*s.*, 6*s.* and 2*s.* 6*d.* The retail prices are higher, and include of course a dealer's profit. Macpherson, ii. 298.

being described as smooth. The third is from Horstead Keynes. In April 1654 a treaty of peace was signed between Cromwell and the United Provinces, and the cessation of a very destructive and determined naval war may account for these extraordinary and exceptional fluctuations. The prices quoted in 1697, 1698, and 1699 are London rates, and taken from Johnson's accounts.

In the early part of the seventeenth century, certain kinds of spices are distinguished, as case pepper, case ginger, case nutmegs, etc. I conclude that this refers to produce which was packed in chests, as opposed to that which was sent in bags. But the price is not materially heightened, though such articles are a little dearer than those which are not so designated. Thus in 1620, pepper is at 2*s.* the pound, while case pepper is at 2*s.* 1*d.* Ordinary nutmegs are at 4*s.* the pound, case at 4*s.* 6*d.*

CLOVES AND MACE. This is a mixed spice, purchased exclusively by King's College and occurring up to 1643, when it disappears entirely, the register being discontinued. The price of this produce rather increases than diminishes in course of time. It was plainly a favourite spice with the Fellows, and was very likely supplied to them on order by the College apothecary, who as long as the fashion prevailed could keep his charges up to a level, and be indifferent to market prices.

CINNAMON AND GINGER. This is another compound spice, also exclusively consumed by King's College. The last entry is in 1641. There is but little change in the price during the period in which this spice is found, and the same comment on the apothecary's charge may probably be made about this, which I have made on the other compound.

NUTMEGS. Nutmegs are the latest of the tropical products which were brought into England. While other spices were in frequent use in early times, the first purchase, except a doubtful one at an earlier date, is at Oxford in 1554, when the price was enormous. The purchases show a slight decline during the first sixty years, the lowest decade being that on

which Digges and Mun commented. Later on, the scanty evidence which has come before me shows that the price was rising. I assign the fact to the monopoly which the Dutch had obtained of the spice islands, to the energetic means which they took to secure or extend the monopoly, and especially to the practice they adopted of bribing or forcing the native princes to destroy all the trees to which possible interlopers might have access. We are expressly told that the English had numerous factories in the spice islands, that they abandoned some of them, and were squeezed out of others by the Dutch. Now it will not be surprising that the East India merchants were able to instigate that bitter hostility to Holland which can be found in all seventeenth-century English literature and indeed onwards, and to foment those prejudices to which Selden, Swift, Arbuthnot, and Defoe gave expression. I feel sure that the extreme unfairness with which the English Governments treated Holland was the outcome of that unhappy commercial policy, under which Dutch trade was more unwise and grasping than even the Spanish and English colonial systems were.

MACE. This is the costliest spice, and exhibits the most capricious prices. Thus in 1590 it is bought for the Queen's household at *6d.* the ounce, or *6s.* the pound. But in 1603 the Archers give *3s. 8d.* for a single ounce, that is at the rate of *44s.* the pound. It is probable that the great difficulty of packing and preserving this fragile product may have made it almost always dear, and may account for the variations in its value. Mun imagines that the price should be the same as that of cloves, but we shall see that to the consumer it is much higher. The evidence indeed is very scanty. There is none for the second decade, and the excessive price of 1603 is misleading. But the rising price in the middle of the century, more than double that in the fourth decade, and the great price in the last, nearly treble that in the fourth, are indications that the same influences which affected the price of nutmegs

controlled that of mace, which is of course the produce of the same plant.

CINNAMON. The influence of the Dutch East India Company was not so powerful over the produce of this spice, which has a wider geographical area than nutmegs, mace, and cloves have. On the general average, the price of cinnamon and nutmegs are very nearly the same. The gradual decline in price of this spice down to the end of the fifth decade is also marked, and the rise afterwards is in accordance with what we have seen in other kinds of tropical produce other than pepper. The price of cinnamon is more variable than that of any other of the spices. Thus it stands at 10*s.* in 1586, goes to 6*s.* in 1587, and is at 3*s.* 6*d.* in 1590. It is 3*s.* in 1608 and 6*s.* in 1609, 3*s.* in 1631, 7*s.* 9*d.* in 1633, and 3*s.* again in 1634. In 1639, 1645, and 1663 it is again at 8*s.* In 1689 it is 16*s.*; in 1692, 8*s.* In 1698 it is 7*s.* 6*d.*; in 1699, 4*s.* It is probable that a very uncertain demand had much to do with these fluctuations in price.

CLOVES. The struggle in the East India islands raged more furiously round the possession of this tropical produce than over any other thing which the region produced. It was for the clove and the sale thereof that the Dutch intrigued with every Eastern chief, and against Portuguese first and Englishman afterwards. More blood has been spilt over cloves than over some dynasties. More unforgiven injuries have been committed, in order to secure the commercial monopoly of this spice, than over anything except the monopoly of religious dogmas. There is no subject which would better illustrate the temper of trade greediness than a narrative of the energies by which the Hollanders secured for themselves the advantages which they coveted. I believe however that, though it lasted through the period before me, the taste for this spice was a transient fashion.

Few and broken as the facts are which I am able to bring forward, they illustrate the struggle in the spice islands with sufficient clearness. The price is comparatively low in the first

decade. The entry in the second is a solitary one, and does not go for much. It may be observed however, that in the third, fourth, fifth and sixth, a substantial rise of nearly the same amount in each successive decade is effected. In the fourth occurred the massacre of Amboyna, which was remembered as late as Cromwell's treaty of 1654, in which provision was taken that the perpetrators of that outrage, resented after the lapse of forty years, should be punished, if any of them were still alive. By the middle of the seventeenth century the Dutch had gained their ends, and secured the monopoly which they had laboured so long to effect.

During this period when success was assured, the price of cloves varies less than that of any other spice. In 1620 Mun alleges that its local price was 9*d.* a pound, the Aleppo price 4*s.* 9*d.* The freight from Aleppo could hardly in that day be less than 1*s.* a pound, and the average, 7*s.* 5*d.*, may fairly represent the difference between the wholesale and retail value. In 1623 Malines represents that the sales of the East India Company gave a price of 5*s.*; Mun, three years before, having put it at 6*s.* Now the Dutch had the opportunity of entirely destroying the Aleppo trade, by the covenants which they made with the native princes, and as long as they could hold their authority, of raising the price of what they trafficked in to the maximum which the market could bear, or the consumer would pay. In the end, and long after the time on which I am commenting, this policy was suicidal. By stinting their market, the Dutch stinted their profits, by limiting the produce they excited the cupidity of other nations, quite as eager as themselves for commercial advantage and better supplied with the resources out of which they could make their eagerness effectual. The Dutch East India Company loaded themselves with debt, persuaded (unhappily an over-easy task) the Dutch republic that private gain is a national advantage and ought to be guaranteed by national sacrifices, dragged the Bank of Amsterdam into the quicksand, and made a nation bankrupt at a time when the commerce of the country was seemingly

prosperous and its finance seemingly sound. Trade beyond doubt is an excellent thing. It has done more to humanise mankind than any other relation of life. But the dangerous postulate, that governments should provide the means out of public taxes by which private ventures should be able to escape their natural risks, is constantly and impudently affirmed to be an axiom, and has cost commercial countries, notably ourselves, untold and forgotten millions, has beggared the tax-payer, and demoralised the recipient of the boon.

GINGER. There is only one other principal spice on which I have to comment. It is not frequently found. Its native soil is the East. But soon after the doubling of the Cape passage and the simultaneous discovery of the New World, it was transplanted to the West, and now I believe the principal source of supply is Central America and the West India islands. During the first sixty years, such prices as are recorded give an average of 1*s.* 9¼*d.* the pound. In 1697 a purchase in London is made at 6*d.* an ounce, or 6*s.* a pound. I suspect that there is an error, not in the price, but in the article, and that it is intended for a candied or preserved produce, which I have occasionally noted. This is rendered the more probable by the fact that in 1698 ginger is purchased by the same person, Johnson, at 9*d.* a pound. As far as spices are concerned, they are almost all of Eastern origin. I have found indeed, in 1698, a single entry of Jamaica pepper, i.e. pimento, at the same price as ordinary pepper, 1*s.* 5*d.* the pound.

I have in the earlier volumes commented on the eagerness with which our forefathers spiced their viands, often using such condiments for their food as aniseed and fenugreek, flavours which are I believe now relegated to the farrier. But the explanation is obvious. In all the particulars of what we may call the comforts and the conveniences, I might also say the familiar inventions of life, England was the most backward and lagging of nations. It developed a constitution when other nations lost theirs,

by unflinching sacrifice and by stubborn energy. It kept the peace at home, and I fear broke it abroad, while other nations, in the interest of aristocracies, invariably brutal but generally polished, permitted havoc to be made of true law and real order. It has welcomed foreigners hither, men who have taught it what it did not know, and would never, I believe, have found out but for their teaching. It owes to these immigrants its manufactures, its trade, and not a little of such political wisdom as it possesses. It owes its agriculture to Holland, its textile fabrics to Flanders, its silk manufactures (rendered abortive by inbred stupidity) to France. Its financiers came from Antwerp and Amsterdam. In science, in art, in learning, it has accepted the results of foreign intelligence, and has placidly assumed that what they have given is autochthonous. It never had a school of painters till the eighteenth century, five centuries after the art had been developed and nearly perfected over the Channel, or as the French call it, over the Sleeve, though two centuries before Reynolds, English gentlefolks paid prodigally for what foreigners produced.

English cookery was detestable. I am disposed to think that the solitary service which the Stuart exiles did to the country which they robbed and demoralised was to teach them the better handling of their food, for it cannot be denied that the kitchen garden made great progress after the Restoration. Now when this change took place, the spicing of food by Eastern produce became less and less a necessity or a fashion, and the Dutch policy was neutralised by comparative abstinence. At the same time it should be remembered that the use of these articles was plainly occasional, and was confined to a comparatively few establishments. The peasant, the farmer, and the small trader had I conceive no spice box, or at best, bought a pinch or two for Christmas fare.

FOREIGN FRUIT. In so far as accounts have been preserved or discovered, there are three kinds of foreign fruit which are regularly in demand—currants, raisins, and prunes; the second being constantly spoken of as raisins of the sun, or

great raisins or Malaga raisins, and the latter being the cheapest produce. Currants came, no doubt, from Greece, especially the islands on the west, raisins from Spain. Prunes I conclude were a French product. They are often called Damask prunes. All these kinds of fruit, and indeed most other foreign produce, are lacking in the twenty years 1663–1682. The deficiency, I repeat, is owing to the custom of not distinguishing the particulars of the purchase.

Fruit was bought, I have no doubt, from the grocer, unless the stock was laid in, as it was less than two generations ago, at the fairs. Thus in 1584, Lord North buys his stock of dried fruit, 72 lbs. in all, at Stourbridge fair. The Cambridge colleges, close to this great mart, undoubtedly did so.

Except during the twenty years 1643–1662, when currants and raisins are greatly raised in price, prices of fruit are very uniform. The upward progress of prices (vol. iv. p. 690) which marked the earlier part of Elizabeth's reign is continued to the end of the century, or even beyond it. Then the price generally declines, but only slightly, till the twenty years to which reference has been made. In the latter part of the period fruit is again cheap, nearly or quite as cheap as it ever was. Of course, during the last decade, prunes are dear, being French produce.

With the motive as before, of avoiding inconvenient fractions, I have taken a hypothetical measure of a dozen pounds. The result is that the average price of currants is 5*s.* 10¼*d.* the dozen, of raisins 4*s.* 10½*d.*, of prunes 2*s.* 10¾*d.* Even in periods of comparatively low average prices, there are years in which prices are high. I conclude, for example, that the currant crops in 1597–1599 and in 1601 were comparative failures, and that the ungenial English summer was experienced in parts of the Mediterranean. The five years 1606–1610 must have had scanty crops, unless generally increasing dearness, perhaps the new book of rates, is to explain it. From 1646–1651 the prices are again very high, as we shall see was the case with a good many other articles when we make

comparison. In 1653 occurs the highest price of the whole period, but in this year the naval war with the Dutch was being waged; Dutch privateers were very strong in the Mediterranean, and had indeed achieved some remarkable successes there. I have no doubt, had the facts been forthcoming in 1664 and 1672, that similarly exalted prices would have been recorded.

Raisins, a Spanish produce, as I conclude, are generally more uniform. But they are dear between 1597 and 1602, a period of war with Spain. They are also dear between 1653 and 1659. During part of this period there was war with Spain, but I am disposed to infer that this cause, however much it may have operated, is to be coupled with defective harvests. It was observed too at the time that the war with Spain enriched the Dutch, by diverting the Spanish carrying trade from England to Holland. Raisins are sometimes spoken of as Alicant.

There is little to comment on in the price of prunes. They are very dear in 1595 and 1596, but are otherwise and generally cheap. By far the largest number of entries come from Cambridge, where this fruit formed a standing dish. The description, Damask prunes, is apparently a general name, for the fruit is not dearer when it is thus specified. Raisins, currants, and prunes are sometimes bought by the hundredweight, and are then rather cheaper.

Rice. Up to nearly the middle of the seventeenth century, rice is found frequently, though not quite regularly. It is purchased as spices are for occasional feasts, and was I believe used for pastry or vegetable jelly, as its flour is more suitable for this purpose than that of any other grain is. In the Harting account of 1633 it is described as Milan rice, and it seems to me likely that it was always Italian produce. In course of time, rice, like all foreign products, is merely quoted among the particulars of the general bill, or is not specified at all in the cost of spices.

The price falls as time goes on, though even in the earlier

years it is subject to strange fluctuations. In 1583 it is bought at Cambridge for the Christmas feast at *9d.* the lb., in 1589 it is procured in the same place and at the same time for *2d.*, the lowest price which I have found. It is generally *6d.* for the first twenty-five years. In 1609 Cambridge gives *6d.*, and it is bought in London for a time at this rate, but in July the London price is *10d.* From this time it is once at *7s. 4d.* the dozen, once at *6s.*, and once at *5s. 4d.* Generally however it is at from *5s.* to *4s.*, with a tendency downwards. In 1653 it is at *3s.* the dozen. There is only one other entry after 1654, at *3s. 3d.* the dozen.

In the earlier period, high prices of rice are generally contemporaneous with high prices of currants, and probably for the same cause, scanty crops, or dangers from storms or piracy in the Mediterranean. Later on, the produce, though I cannot give particulars, was probably more regular, and in consequence the price was lowered.

Generally, rice was purchased at Christmas only. It may therefore have been used for some special dish, regularly supplied at that season, as a custom or fashion. The fact that the price was ordinarily uniform suggests that the dealer knew and anticipated an occasional demand for it.

SUGAR. It appears that sugar was not refined in England till the end of the seventeenth century. There are generally at least two marked qualities, coarse, kitchen, powder, and sometimes Muscovado; and fine or refined. I have as before taken the hypothetical dozen lbs.

The sugar-cane was a gift of the Old World to the New. It appears to be indigenous in Sicily, and to have been largely cultivated in Egypt. But the conquest of Egypt was the ruin of the Alexandrian sugar interest, and the produce, which had been cheap at the end of the fourteenth century, is dear again at the end of the sixteenth. At the end of the first quarter of the seventeenth century it was planted in Barbadoes, and though for a long time Brazil was the chief source of this article, by the beginning of the last quarter

of the same century colonial produce, we are told, was alone consumed in England. Under the Commonwealth an excise of five per cent. was levied on sugar, to be paid by the consumer. In 1685, his parliament granted James, in addition to the old customs, 2*s.* 4*d.* per cwt. for muscovado and 7*s.* the cwt. for sugar fit for use, if from the British plantations; 4*s.* 8*d.* the cwt. on Brazilian muscovado, 14*s.* on foreign white, and 28*s.* the cwt. on foreign loaf. It appears that by this time refineries had been established in England.

Sugar of all kinds continues dear for the first seventy years of the period, but rapidly declines in price during the last fifty, especially the refined kind. I have no entries for coarse sugar during the ten years 1673–1682, but on comparing the price of refined I am convinced that it grew cheaper during that time. The increase in price during the last ten years must probably be set down to the risks of war. The duties imposed on sugar in 1685 were remitted in 1693, because it was found that they interfered with the foreign trade of the English refiners and traders.

In 1605 Lord Spencer buys a considerable quantity of loaf sugar at a very high price, 2*s.* the pound, under the name of Barbary sugar. Again, what is called 'preserving sugar' is at a high price in 1633 and 1638. The price begins to fall in 1653. I find Lisbon sugar in 1697 among London purchases, the price showing that it was refined; and in 1698 double refined is at 1*s.*, and loaf at 7*d.* In 1702 single refined loaf is 10*d.*, double refined 1*s.* 3*d.* During the first seventy years the average of inferior sugar is 14*s.* $0\frac{1}{4}d.$ the dozen; of refined, 19*s.* $2\frac{3}{4}d.$ During the last fifty, the same qualities and quantities are 7*s.* $10\frac{1}{4}d.$ and 11*s.* $4\frac{1}{4}d.$ There is no doubt that, as the supply of sugar was increased, the demand for the produce was increased also. Tea, coffee, and chocolate became, in the last forty years of the century, common and favourite beverages, and the use of sugar to sweeten them was as general as the consumption was.

The growing cheapness of sugar is further illustrated by the

quantities, now much larger, by which it is bought. In the earlier times, rich people bought it by the pound, or at most by the loaf, a loaf of sugar being a favourite present to a distinguished personage. Even such an opulent person as Lord Spencer buys stocks of sugar by the loaf, though on two occasions, 1613, 1614, the weight of the twenty loaves bought is given. In 1664 it is first bought (and without the designation of loaves) by the cwt. at 84*s.* It is again purchased in the same manner in 1697. Sugar is bought by the pound of sixteen ounces.

In vol. iv. p. 676, I have referred to the weight of sugar-loaves, in so far as they appeared in the fifteenth and the greater part of the sixteenth centuries. Similar weights are given in the period before me now. But during this period the weights of the loaf are very various. I have found one towards the close of the period (in 1700) amounting to 56 lbs. 5 oz., the highest weight, and others the year before as low as 4 lbs. 1 oz. The weight tends to lessen as time goes on. In 1604, two loaves of Barbary sugar, bought at 2*s.* the pound, are each at 24 lbs. 5 oz. The average taken from twenty-six entries of sugar-loaves gives a medium weight of nearly 10 lbs. 10½ oz. The great variation in the magnitude of these products is probably to be assigned to origin, and to the interpretation which the refiners put on what was likely to be the most marketable size.

There is but little variety in the spices and fruits which the colleges and ordinary gentlefolks purchased. There are however some other products, mostly foreign, or at least compounded from foreign products, which are registered in the accounts—spices, fruits, preparations of sugar, condiments and drugs. To these during the last seventy years is to be added tobacco.

The commonest of these is aniseed. I have found it from 1585 to 1620 in twelve years. The price varies between 1*s.* 2*d.* and 6*d.* the pound. The average of the whole is 10¼*d.* Three entries of turnsole give a little over 2*s.* 5*d.* the pound,

three of sanders 3*s.* 4*d.* These are early. Later I find turmeric at 1*s.* Five of carraways, also early, are at an average of a little over 1*s.* 4½*d.* Green or wet ginger is bought twice at 3*s.* 9*d.* In 1585 saffron is bought at 2*s.* 6*d.* the ounce, in 1608 at 40*s.* the pound, in 1614 at 24*s.*, the fact being noted that the saffron is English. In 1585 isinglass is 4*s.* the pound; in 1601, 2*d.* the oz.; in 1623, 3*s.* a pound; in 1684, 6*d.* an oz. Once I have found coriander. In 1609 it is 5*s.* 4*d.* the pound. Three times I have found grains of paradise at a little over 1*s.* 1¼*d.* the pound; fenugreek once, at 7*d.*

Figs are found occasionally, generally at 4*d.* the pound. In one year (1601) they are at 6½*d.* In the year 1633, when ordinary figs are at 4*d.*, some styled blue figs are bought by Caryll at 1*s.* 3*d.* It is well known that the fig was planted in England, especially in the South, though also in Oxford, early in the seventeenth century, the story being that some of the trees in Oxford were the first ever planted, and that the old fig plantation at Worthing was derived from the Oxford plants. It is probable then that the purchase was of ripe green figs from some southern orchard. Blue figs are also bought at Mendham in 1639 at 10*d.* Dates are found also in nine years, but at very various prices, 3*s.* a pound in 1609, and 3*d.* in 1614. Generally they are from 1*s.* to 2*s.* In 1590, 1*s.* is given for a pomegranate.

Oranges and lemons are also purchased. In 1599 a 'quarter' of 'Cyvell' oranges, by which I suppose a quarter of a hundred is meant, costs 2*s.* A century later 100 Seville oranges cost 3*s.* 6*d.* The price of ordinary oranges varies very much, from 4*d.* to 3*s.* a dozen. The supply must have been very irregular, or the market very uncertain. Lemons are generally dearer than oranges. The cheapest are at 1*s.* 6*d.* the score in 1632. But the price varies from 1*s.* to 3*s.* a dozen. In 1699 Seville lemons are at 9*s.* the hundred. The average price of the orange entries is 1*s.* 0½*d.* the dozen, of the lemons, 2*s.*

I have found almonds, described as Jordan and Valentia, in twelve years, the average being 1*s.* 3¾*d.* the pound; bitter almonds thrice, at 1*s.* 4*d.* Prunelloes are found twice, at 1*s.* 11½*d.* A melon costs 3*s.* in 1649, and two are bought at 9*d.* each in 1650. In 1651, two pounds of dried pears are purchased at 1*s.* In 1621, French barley costs 4*d.* a pound; in 1654, 5*d.*

Sugar-candy, brown and white, is occasionally bought, by the pound from 1*s.* 8*d.* to 2*s.* 8*d.*, by the ounce at 1½*d* Comfits, i.e. sugar flavoured with spice or scent, are found. In 1587, they cost 1*s.* 9*d.* the pound; in 1602, 1*s.* 4*d.* In 1605, cinnamon comfits are at 1*s.* 6*d.*, coriander and orange at 1*s.* 4*d.* In 1614, cinnamon, orange, ginger, violet and rosemary, sweet-fennel and musk, all at 1*s.* 8*d.*, are bought by Lord Spencer. In 1616, almond and oliander[1] comfits are at 1*s.* 4*d.* In 1623, the same nobleman buys a greater variety; cinnamon, ginger, orange, violet, carroway, sweet-fennel, coriander, and lemon. In 1649, sweetmeats are at 3*s.*; in 1650, at 3*s.* and 3*s.* 6*d.* In 1654 I find cherry and raspberry confections at 2*s.* 8*d.*, and in 1684 carroway comfits are at 1*s.* 4*d.* the pound.

In 1654, oringade is at 2*s.* the pound. In 1605, biscuit is at 1*s.* 4*d.*; in 1616, now called Naples, at 2*s.* 6*d.* This is probably much the same as marchpane at 2*s.* in the latter year. Marmalade is bought in 1602, 1607, and 1619 by the Archers of Theydon Gernon at 2*s.* 2*d.*, 2*s.*, and 1*s.* 5*d.* the box. Wet citron, I suppose preserved in sugar, is 3*s.* 6*d.* a pound in 1649; candied citron, 2*s.* 8*d.* in 1689. In 1697, dried citron is 2*s.* 8*d.*; candied orange and lemon, 2*s.*; dried cherries, 3*s.* 6*d.* In 1615 eringo roots are bought at 4*s.* the pound, and treacle in 1618 at 9*d.* Liquorice costs about 8¼*d.* a pound.

Among other miscellaneous foreign produce are olives, capers and anchovies. The first is generally bought by the

[1] I suspect that 'oliander,' which I copied with doubt, is a scribe's mistake for coriander. I cannot conceive that the oleander could make any sweetmeat whatever.

gallon. But it is once bought by the barrel, which probably held two gallons, as is said in 1621. An average of ten entries gives 4*s.* 5*d.* the gallon. During the earliest years however the price is about 2*s.* 6*d.*, a rate at which this article is bought in 1631.

In 1672 Pepys buys large olives at 6*s.* 4*d.* the gallon, and Lucca olives at 8*s.*

Capers are generally bought by the pound, occasionally by the barrel, which in 1621 is said to hold three pounds. They are twice described as Genoa produce, and are largely bought for the Fellows of Winchester. An average of seventeen entries gives nearly 1*s.* 2*d.* the pound.

Anchovies, bought by the pound, are almost entirely derived from the Winchester accounts. An average of nine Winchester entries during the latter part of the seventeenth century gives 1*s.* 4½*d.* the pound. Once they are bought (1632) by Caryll at 2*s.* 6*d.* the pound.

There are a few entries of drugs. In 1609 an ounce of dragon's blood is bought at 30*s.* a pound. In 1623 Lord Spencer buys four ounces of spermaceti at 8*d.*, four ounces of mithridate at 2*s.*, four ounces of dioscoridum at 1*s.* 4*d.*, and a pound of gumdragon at 4*s.* In 1631 Caryll buys a pound of drops of olibanum for 5*s.*, and in 1632 three and a-half ounces of mithridate at 1*s.* 6*d.* In the same year Lord Spencer buys two ounces of spermaceti at 5*d.*, and an ounce of mastic for 10*d.* Next year Caryll gives 9*s.* for a Bezoar stone, 2*s.* for half a pound of London treacle (theriacum), 9*d.* for two ounces of spermaceti, 1*s.* for an ounce of oil of mace, 9*d.* for two ounces of oil of benjamin, and 1*s.* for an ounce of mastic. There are other drugs in the list of Sundry Articles.

Manna is found five times, in 1619 at 8*d.*, in 1685 at 5*d.*, in 1686 at 4*d.*, in 1687 and 1688 at 3*d.* the ounce. In the first year it is bought by the Archers, on the other four occasions in London.

Among varieties of foreign produce, I may here refer to two 'westfaylie' gammons in 1632 at 7*s.* 3*d.* each.

TOBACCO. The earliest entry of tobacco which I have found is in 1633, though the year before tobacco-stalks are purchased by the pound at a very low price by Lord Spencer. I cannot guess what the purpose is for which they are purchased, except it be for medicine, as they are found associated with drugs. Of course every one knows that the use of tobacco for smoking was much earlier than the date at which I have found it, but my accounts are mainly of colleges, in which the practice of smoking, at any rate at the college expense, was a late innovation.

There are two kinds of tobacco, Spanish and Virginia, the former as a rule much dearer than the latter. In the first entry, the article is at the dearest price which I have seen, 12*s.* 3*d.* the pound, when three pounds are bought by Caryll of Harting. I find no other entry till 1649, when Master buys a pound for 4*s.*, the origin not being given. In 1652 the same person buys at 7*s.*, the tobacco being Spanish. In 1655 tobacco costs 6*d.* an ounce, or 8*s.* the pound avoirdupois, at Horstead Keynes, but the kind is not stated. In 1656 and 1657 Master buys Spanish tobacco at 10*s.*, in 1658 at 9*s.* 5*d.*, and in 1662 at 8*s.*, though the kind is not given.

In 1670 tobacco is bought by Eton at 3*s.* 1½*d.* In 1674 a roll of Spanish tobacco weighing twelve pounds is said to have been bought by Masters for 15*s.* This is of course an impossible price, and either some blunder has been made in the account, or the purchaser must have evaded the duty and bought it from a smuggler.

In 1674 Pepys gives 8*s.* for Spanish, 2*s.* 6*d.* for best Virginia, and 5*s.* for a mixture of Virginia and Spanish.

In 1681 Cambridge buys tobacco, no doubt colonial, at 2*s.* 6*d.* (Oxford, vol. vi. p. 606, at 3*s.* a pound). In 1684 'best Virginia' is bought in London at 1*s.* 8*d.* In 1685 Spanish costs 6*s.* 6*d.* a pound in London; in 1686, 7*s.*; while in the same year, tobacco, no doubt colonial, is bought in the Twineham purchases at 1*s.* 6*d.* In 1687, in London, Spanish is at 7*s.*, best Virginia at 2*s.* 6*d.* In 1688 I find the same price for

Spanish in the same place. In 1689, tobacco in London, certainly colonial, is at 2*s.* 6*d.*; as also in 1691. In 1692 it is bought at Henley-on-Thames at various prices, 9½ pounds at 2*s.*, one pound at 2*s.* 4*d.*, three pounds at 2*s.* 6*d.* In December and May the best Virginia is at 2*s.*, while best tobacco is at 1*s.* 8¼*d.*, considerable quantities being purchased. In 1702 fifty-six pounds of tobacco are bought, the origin not designated, at 1*s.* 6*d.*, but certainly colonial.

Now before 1685 the duty or custom on Spanish was 6*d.* a pound; on plantation, a penny. In 1685 the former was raised to 1*s.*, the latter to 4*d.*, according to Mr. Dowel. It would seem, therefore, that in later times the fashion of using Spanish had passed away, for had it still remained popular, the duty of a shilling could hardly have stopped its consumption. Besides, we know that the importation of colonial tobacco was increasing so rapidly, that the protection and support of this produce from the plantations materially modified or influenced the financial projects of the government, and that the policy which was carried out caused considerable discontent.

The average of eleven entries of Spanish tobacco, omitting that of 1670, and treating the high-priced kinds, though unnamed, as Spanish, is 9*s.* 3½*d.* An average of ten entries of tobacco, which is plainly colonial, is 2*s.* 2¼*d.*, the earliest entry of this character being in 1670.

To evade the great and exorbitant duty levied by James the planting of tobacco was introduced into England. It was at once prohibited, first by proclamation, then by Act of parliament. We are told that the English produce was very inferior. It is certain that the Act was evaded, and that during the Civil War, and probably long afterwards, tobacco was planted in England. The quantity consumed, if one can judge from the pipes which are frequently found, was small. According to Mr. Dowel, the revenue from tobacco in 1623 was £8,380; in 1635, £10,000. If the duty was enforced on all consumption, and the tax of James continued, the quantity

imported could only have been 25,140 pounds in the first return, and 30,000 pounds in the second. Smoking was I believe mainly a luxury of the middle classes in towns.

In 1696 I find a pound of chocolate at 3*s.* 3½*d.*, in 1697 one of coffee at 4*s.* 6*d.*

In the subjoined tables I have given the prices of three kinds of wine, eight kinds of spice, three kinds of fruit, two kinds of sugar, and of rice, with decennial averages as far as they can be gathered. I had hoped to fill up the gaps in these tables from the archives of some of the City companies, notably the Grocers; but unfortunately the records have not been preserved. I must acknowledge here the courtesy and labours of Mr. Kingdon, lately Warden of the Grocers' Company, for the searches which he has made in the archives of that ancient guild, though they have been fruitless for my present purpose.

For the trade of the East India Company the reader is referred to the price of its stock, both of the Old and the English, taken from Houghton's collections.

Price of Foreign Produce.

	Claret.	Sack.	Muscadel or Muscadine.	Pepper, doz. lbs.	Cloves and mace, lb.	Nutmeg, lb.	Mace, lb.	Cinnamon, lb.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1583-4	1 11	2 5½	3 6	45 0	9 4	.....	.....	.....
1584-5	1 6¾	3 0	3 1	41 11	.....	.....	.....	.....
1585-6	1 4	3 0	3 4	55 9½	.....	5 6	14 10	9 5½
1586-7	2 0	3 2¾	3 3¾	52 0	.....	7 6	11 4	10 0
1587-8	.....	3 3	3 5¼	50 0	.....	.....	.....	6 0
1588-9	2 8	3 3	4 0	44 3	.....	.....	.....	.....
1589-9	2 8	3 1½	.....	39 4	8 7	.....	.....	.....
1590-1	2 6	3 5	.....	44 0	.....	.....	6 0	3 6
1591-2	2 0	3 3	.....	43 0	8 0	.....	.....	.....
1592-3	2 8	3 4	.....	36 0	8 6	.....	.....	.....
1593-4	2 0	3 0	.....	38 2	6 0	.....	.....	.....
1594-5	2 0	2 11	3 4	39 0	.....	.....	.....	6 0
1595-6	2 2¾	3 4	.....	36 0	8 0	5 4	.....	.....
1596-7	.....	2 8	.....	42 0	8 0	.....	.....	.....
1597-8	2 8	4 0	.....	64 0	.....	.....	.....	.....
1598-9	2 8	4 4	.....	60 0	8 0	.....	.....	.....
1599-1600	2 3	3 9¼	.....	50 0	.....	.....	.....	.....
1600-1	1 10	3 5½	.....	54 0	.....	5 6	.....	.....
1601-2	2 3	3 6	.....	45 9	.....	.....	.....	4 0
1602-3	2 4	3 2¾	4 0	35 2	.....	.....	.....	.....
1603-4	2 0	4 0	4 0	36 0	8 0	.....	44 0	.....
1604-5	2 0	3 4	4 0	.....	.....	4 0	.....	.....
1605-6	2 0	3 2	4 0	28 8	6 0	5 0	.....	4 4
1606-7	2 2	3 8	4 0	24 4	7 0	4 5	.....	6 0
1607-8	2 5	3 10	4 0	24 0	6 0	4 0	.....	4 0
1608-9	2 7	3 10	4 0	37 8	8 0	4 0	.....	3 0
1609-10	2 7	3 9	4 0	24 0	8 0	5 1	10 0	8 0
1610-1	2 3½	3 10	.....	.....	8 0	.....	.....	6 0
1611-2	1 11¾	3 4	4 0	27 0	8 0	5 0	.....	.....
1612-3	2 0	3 4	4 0	24 0	.....	4 0	.....	3 0
1613-4	2 2	3 4	4 0	28 0	7 6	4 0	6 0	3 0
1614-5	2 2	3 4	4 0	28 0	7 0	4 0	8 0	5 0

Price of Foreign Produce.

Cinnamon and ginger, lb.	Cloves.	Ginger.	Currants, doz. lbs.	Raisins, doz. lbs.	Prunes, doz. lbs.	Sugar, coarse, doz. lbs.	Sugar, refined, doz. lbs.	Rice, doz. lbs.
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
.....	.....	.....	4 6	3 0	2 6	11 0	16 6	9 0
.....	.....	.....	5 2	2 10	2 6	.....	.....	.....
.....	6 3	2 6¼	5 6	4 9	3 3	14 0	19 4	6 0
.....	4 6	1 8	5 0	3 9	4 0	15 0	19 0	.....
.....	.....	.....	5 0	4 0	4 0	15 6	.....	.....
.....	.....	.....	6 10	4 0	3 0	14 0	20 0	.....
4 8	.....	.....	4 1	3 9	2 10	12 3	15 6	2 0
.....	3 0	1 9	4 7½	3 7½	3 1½	13 6	15 6	.....
4 0	.....	.....	4 6	5 0	3 0	13 6	16 0	.....
.....	.....	.....	6 6	4 9	2 9	12 0	15 6	6 0
.....	.....	2 6	6 0	3 6	3 0	.....	16 0	6 0
.....	.....	3 0	5 0	4 0	2 6	12 0	15 0	.....
4 0	.....	.....	6 6	3 6	4 6	12 0	16 0	6 0
4 0	.....	.....	6 6	3 9	5 0	12 0	16 0	.....
.....	.....	.....	5 6	6 0	.....	16 0	20 0	.....
4 0	8 0	.....	5 6	6 6	3 10	16 0	20 0	6 3
.....	.....	.....	5 6	6 0	4 0	16 0	20 0	6 0
4 0	.....	.....	6 9	4 0	3 0½	18 6	24 0	6 0
.....	.....	.....	5 7½	6 6	3 0	18 0	24 0	6 0
.....	.....	.....	5 4	5 0¾	3 4	15 0	20 0	6 0
.....	.....	.....	6 0	3 9	3 0	16 6	.....	.....
.....	5 0	.....	5 6	3 0	2 0	13 0	17 0	.....
4 0	.....	1 6	5 5½	5 5	3 3	12 0	24 0	.....
3 2	.....	.....	6 7½	3 7	2 6	14 9	19 0	.....
.....	5 4	.....	6 5½	3 6¾	2 0	13 0	18 8	... .
.....	5 0	.....	6 0	4 0	3 0	13 0	20 0	6 0
3 8	7 6	1 4	7 0	5 0	3 0	12 0	22 0	7 8
.....	5 0	.....	6 0	4 0	.....	14 0	22 0	.....
4 0	7 6	.....	5 4½	4 3	2 5¼	14 5¼	19 3	4 6
.....	7 6	.....	5 3¼	4 6	2 3	14 0	20 6	.....
3 7	7 0	1 7	5 4	3 9	2 0	12 4	19 0	5 0
.....	9 0	1 6	5 4	4 4½	2 9	12 10	18 0	5 0

	Claret.	Sack.	Muscadel or Muscadine.	Pepper, doz. lbs.	Cloves and mace, lb.	Nutmeg, lb.	Mace, lb.	Cinnamon, lb.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1615–6	2 1	3 4	4 0	27 8	8 0	4 0	8 0	.....
1616–7	1 11	3 4	4 0	28 5	7 0	3 9	7 6	5 0
1617–8	2 3	3 8	4 0	32 3	.....	4 0	7 6	4 0
1618–9	2 4	3 8	4 0	24 0	.....	4 0	.....	.....
1619–20	2 4	3 8	4 0	28 0	.....	4 0	7 0	3 0
1620–1	2 4	3 8	4 0	24 6	7 0	4 3	10 0	3 6
1621–2	2 8	4 0	4 0	24 0	.....	4 8	8 4	4 6
1622–3	2 8	3 10	4 0	24 0	.....	.....	.....	.....
1623–4	2 4	3 8	4 0	24 0	.....	4 6	6 8	3 9
1624–5	2 8	4 0	4 0	24 0	.....	4 0	.....	3 0
1625–6	2 8	4 0	4 0	.....	.....	.....	.....	.....
1626–7	2 8	4 8	4 0	.....	.....	.....	.....	.....
1627–8	2 8	5 0	4 8	24 0	10 0	4 6	10 0	4 8
1628–9	2 8	5 4	5 4	.....	.....	.....	.....	.....
1629–30	2 8	4 0	4 8	23 7	.....	7 4	11 0	3 $7\frac{1}{2}$
1630–1	2 8	4 0	4 8	.....	.....	.....	.....	.....
1631–2	2 4	3 9	4 2^2	18 2	10 0	4 9	9 $10\frac{1}{2}$	3 0
1632–3	2 8	4 0	.....	.....	.....	.....	.....	.....
1633–4	2 8	4 0	4 0	20 0	.....	4 6	.....	7 9
1634–5	2 8	4 0	4 0	.....	10 0	4 $8\frac{1}{2}$	11 4	3 0
1635–6	2 8	4 4	.....	24 0	10 0	4 $5\frac{1}{4}$	11 4	3 3
1636–7	2 8	4 $1\frac{1}{2}$	9 4	24 0	10 0	4 $9\frac{3}{4}$	12 0	3 0
1637–8	2 4	4 8	.....	24 0	.....	5 4	12 0	.....
1638–9	2 4	4 8	.....	30 0	.....	5 0	12 0	.....
1639–40	2 8	4 8	4 $9\frac{1}{2}^2$	24 0	7 $3\frac{1}{2}$	6 0	12 0	8 0
1640–1	2 8	4 8	.....	.....	.....	.....	.....	.....
1641–2	.....	.....	.....	.....	10 0	4 6	.....	.....
1642–3	.....	.....	.....	.....	.....	4 0	.....	.....
1643–4	.....	6 0	4 8	.....	9 0	.....	.....	.....
1644–5	3 4	5 8	.....	.....	.....	.....	.....	.....
1645–6	3 0	5 0	.....	.....	.....	.....	.....	8 0
1646–7	2 8	5 4	.....	.....	.....	.....	.....	.....
1647–8	2 8	5 4	.....	.....	.....	.....	.....	.....
1648–9	3 4	3 4	5 0^2	.....	.....	.....	.....	.....
1649–50	4 0	6 4	.....	.....	.....	.....	.....	.....
1650–1	4 0	22 0^1	7 $5\frac{1}{2}$	.....	.....	.....	.....	.....

[1] Dozen. [2] Canary.

Cinnamon and ginger, lb.	Cloves.	Ginger.	Currants, doz. lbs.	Raisins, doz. lbs.	Prunes, doz. lbs.	Sugar, coarse, doz. lbs.	Sugar, refined, doz. lbs.	Rice, doz. lbs.
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
3 0	.....	.....	5 6	4 3	2 6	13 9	20 0	.....
3 0	6 9	1 7	5 9	4 6	2 3	12 6	17 6	5 0
3 0	7 0	1 4	6 8	5 0	2 6	11 9¾	17 0	4 0
3 0	7 0	1 4	6 0	6 0	2 6	13 0	18 0	5 4
.....	7 0	.....	5 9	6 0	2 8	12 3¾	18 0	4 0
.....	7 6	1 4	6 0	5 3	2 3	12 6	17 0	4 0
.....	8 0	1 8	5 6	4 8	2 6	12 6	17 0	4 0
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	7 0	1 8	4 6	4 11	2 3	10 0	14 0	.....
.....	7 0	.....	5 0	5 1	2 7	13 0	16 0	3 6
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	14 0	20 0	.....
4 0	11 0	.....	6 0	6 0	3 3½	12 10	23 0	5 0
.....	.....	.....	.....	.....	.....	.....	.....	.....
3 0	10 0	1 0	5 0	4 9	2 6	13 3	18 6	7 4
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	10 0	.....	5 3	4 6	2 7½	15 6	20 0	5 0
.....	.....	.....	.....	.....	.....	.....	22 6	.....
.....	11 0	1 8	5 6	5 6	2 6	12 9	19 0	4 7½
3 0	12 8	.....	5 3	5 0	2 3	15 0	20 0	4 0
3 0	10 0	.....	5 0	5 0	2 0	14 6	20 0	.....
6 0	10 0	.....	5 9	4 6	2 0	16 0	21 0	4 0
.....	.....	.....	.....	6 0	.....	11 0	.....	.....
.....	.....	.....	.....	.....	.....	20 0	26 0	5 0
3 0	9 8	1 4	5 8½	4 6	2 4¼	14 6	23 4	4 9
.....	.....	.....	.....	.....	.....	.....	.....	.....
3 0	10 0	.....	6 3	4 0	2 0	12 3	.....	.....
.....	.....	.....	5 0	4 0¾	2 0	12 0	.....	4 0
.....	.....	.....	5 0	.....	.....	12 0	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	6 0	5 0	.....	12 6	22 0	6 0
.....	.....	.....	7 0	5 3	.....	.....	.....	.....
.....	.....	.....	7 6	5 0	.....	15 0	18 0	.....
.....	.....	.....	9 0	6 0	.....	16 0	18 0	.....
.....	.....	.....	6 6	.....	.....	16 0	18 0	.....
.....	.....	.....	6 0	.....	.....	14 8	.....	.....

	Claret.	Sack.	Muscadel or Muscadine.	Pepper, doz. lbs.	Cloves and mace, lb.	Nutmeg, lb.	Mace, lb.	Cinnamon, lb.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1651–2	16 0[1]	24 0[1]	.....	.....	.....	.....	.....	.....
1652–3	.....	7 8	.....	.....	.....	.....	.....	.....
1653–4	.....	7 8	.....	16 0	.....	6 6	16 11	4 8
1654–5	16 0[1]	8 0	.....	9 0	.....	6 0	16 0	.....
1655–6	4 8	8 0	.....	36 0	.....	.....	.....	.....
1656–7	.....	.....	.....	.....	.....	.....	.....	.....
1657–8	4 0	8 0	.....	.....	.....	.....	.....	.....
1658–9	4 0	8 2½	.....	.....	.....	.....	.....	.....
1659–60	4 0	7 0	.....	.....	.....	.....	.....	.....
1660–1	.....	8 0	.....	.....	.....	.....	.....	.....
1661–2	12 0[1]	6 8	6 0	.....	.....	.....	.....	.....
1662–3	2 0	6 0	6 8	.....	.....	.....	.....	.....
1663–4	2 8	18 0[1]	8 0	.....	.....	4 6	.....	8 0
1664–5	3 8	22 0[1]	7 4	.....	.....	.....	.....	.....
1665–6	3 8	6 0[1]	8 0	.....	.....	.....	.....	.....
1666–7	3 10	8 0	10 0	.....	.....	.....	.....	.....
1667–8	8 10½[1]	24 0[1]	8 0	.....	.....	.....	.....	.....
1668–9	.....	8 0	10 0	.....	.....	.....	.....	.....
1669–70	12 0[1]	[1]18 8[2]	.....	.....	.....	.....	.....	.....
1670–1	4 0	8 0	8 0[3]	.....	.....	.....	.....	.....
1671–2	.....	.....	.....	.....	.....	.....	.....	.....
1672–3	13 0[1]	.....	10 0	.....	.....	.....	.....	.....
1673–4	.....	24 0[1]	.....	.....	.....	.....	.....	.....
1674–5	10 0[1]	.....	[1]18 0[3]	.....	.....	.....	.....	.....
1675–6	4 0	.....	8 0[3]	.....	.....	.....	.....	.....
1676–7	3 8	.....	7 0[3]	.....	.....	.....	.....	.....
1677–8	.....	.....	.....	.....	.....	.....	.....	.....
1678–9	.....	.....	.....	.....	.....	.....	.....	.....
1679–80	.....	8 0	.....	.....	.....	.....	.....	.....
1680–1	.....	.....	.....	.....	.....	.....	.....	.....
1681–2	.....	.....	12 0	.....	.....	.....	.....	.....
1682–3	.. ..	.....	10 0	.....	.....	.....	.....	.....
1683–4	.....	.....	11 0	.....	.....	.....	.....	.....
1684–5	.....	.....	12 0	26 8	.....	6 0	.....	.....
1685–6	12 0[1]	.....	12 0	.....	.....	.....	.....	.....
1686–7	12 0[1]	24 0[1]	.....	.....	.....	.....	.....	.....

[1] Dozen. [2] Sherry. [3] Canary.

Cinnamon and ginger, lb.	Cloves.	Ginger.	Currants, doz. lbs.	Raisins, doz. lbs.	Prunes, doz. lbs.	Sugar, coarse, doz. lbs.	Sugar, refined, doz. lbs.	Rice, doz. lbs.
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
....	....	....	7 10	....	....	....	20 9	....
....	....	....	....	....	....	....	....	....
....	8 8	....	10 11	6 0	3 0	8 0	16 6	3 0
....	8 0	....	6 6	4 6	....	9 0	12 6	4 0
....	....	....	6 9	....	....	7 6	10 0	....
....	....	....	....	....	....	....	12 0	....
....	....	....	8 0	7 6	....	8 0	12 0	....
....	....	....	....	....	....	....	12 0	....
....	....	....	....	7 0	....	8 6	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	10 0	....	....
....	....	....	....	....	....	....	....	....
....	12 8	1 0	....	....	....	10 0	....	....
....	....	....	....	....	....	9 0	....	....
....	....	....	....	....	....	....	12 0	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	8 0	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	10 0	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....
....	....	....	5 0	4 0	....	6 7½	....	....
....	....	....	....	4 6	2 0	7 6	....	....
....	....	....	....	4 0	....	6 9½	....	....

	Claret.	Sack.	Muscadel or Muscadine.	Pepper, doz. lbs.	Cloves and mace, lb.	Nutmeg, lb.	Mace, lb.	Cinnamon, lb.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1687–8	12 0[1]	10 6	.....	30 0	.....	.....	.....	.....
1688–9	4 0	.....	.....	.....	.....	8 0	.....	10 8
1689–90	4 0	.....	.....	.....	.....	11 4	.....	16 0
1690–1	.....	8 0	.....	.....	.....	.....	.....	.....
1691–2	14 0[1]	.....	14 8	.....	.....	.....	.....	.....
1692–3	18 0[1]	.....	.....	30 0	.....	7 0	.....	8 0
1693–4	15 8	.....	[1]24 0[3]	.....	.....	.....	.....	.....
1694–5	.....	.....	.....	.....	.....	.....	.....	.....
1695–6	20 0[1]	.....	10 0[3]	.....	.....	.....	.....	.....
1696–7	.....	24 0[1]	10 0[4]	.....	.....	.....	.....	.....
1697–8	6 0	6 8[2]	[1]24 0[3]	18 0	.....	7 7½	21 4	7 0
1698–9	6 0	8 0	10 0	17 0	.....	8 1½	23 1½	7 6
1699–1700	6 0	8 0	8 0[3]	18 0	.....	7 9	21 0	4 0
1700–1	.....	.....	.....	.....	.....	9 0	24 0	.....
1701–2	4 9[5]	.....	.....	.....	.....	.....	.....	.....
1702–3	.....	25 0[1]	11 1¼[6]	.....	.....	.....	.....	.....

Decennial Averages.

	Claret.	Sack.	Muscadel or Muscadine.	Pepper, doz. lb.	Cloves and mace, lb.	Nutmeg, lb.	Mace, lb.	Cinnamon, lb
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1583–1592	2 1¾	3 1½	3 5¼	45 1½	8 7¼	6 6	10 9	7 3
1593–1602	2 3	3 5	3 8	46 5	7 6	5 7	.....	5 0
1603–1612	2 2½	3 7¼	4 0	28 2½	7 4½	4 5¼	27 0	4 11
1613–1622	2 3½	3 7	4 0	26 10½	7 3½	4 1	7 9½	4 0
1623–1632	2 7¼	4 3	4 4¾	22 9½	10 0	5 0¼	9 2	3 5
1633–1642	2 7	4 4¾	5 6¼	24 4	9 5½	4 9¾	11 9¼	5 0
1643–1652	2 8½	5 7¼	5 8½	.....	9 0	.....	.....	8 0
1653–1662	3 8	6 9	6 4	20 4	.....	6 3	16 5½	4 8
1663–1672	3 2	6 1	8 8	.....	.....	4 6	.....	8 0
1673–1682	3 10	7 0	11 0	.....	.....	.....	.....	.....
1683–1692	3 7	8 2	12 5	28 11	.....	8 1	.....	8 2¾
1693–1702	5 6½	6 10¾	8 6	17 8	.....	8 1½	22 4¼	6 2
Gen. Average	3 0½	5 3	6 5½	28 11	8 5½	5 9	15 0½	5 8¼

[1] Dozen. [2] Madeira. [3] Canary. [4] Tent.
[5] Reduced from hogshead. [6] Palm wine.

Cinnamon and ginger, lb.	Cloves.	Ginger.	Currants, doz. lbs.	Raisins, doz. lbs.	Prunes, doz. lbs.	Sugar, coarse, doz. lbs.	Sugar, refined, doz. lbs.	Rice, doz. lbs.
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
.....	.....	.....	.....	4 0	2 0	6 6	.....	.....
.....	.....	.....	.....	4 6	2 6	6 6	.....	.....
.....	10 0	.....	.....	6 0	.....	6 3	9 6	.....
.....	.....	.....	.....	4 9	.....	6 9	.....	.....
.....	.....	.....	.....	.....	.....	5 9	.....	.....
.....	12 0	.....	.....	.....	.....	8 0	.....	.....
.....	.....	.....	.....	.....	.....	8 0	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	7 9	0 6	5 0½	4 0	4 0	5 3	13 0	3 3
.....	9 0	0 9	5 0	3 9	.....	5 0	11 0	.....
.....	7 0	.....	6 6	3 6	.....	6 6	11 0	.....
.....	9 0	.....	.....	.....	.....	9 0	14 0	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	6 9	6 0	.....	10 0	15 0	.....

Decennial Averages.

Cinnamon and ginger, lb.	Cloves.	Ginger.	Currants, doz. lbs.	Raisins, doz. lbs.	Prunes, doz. lbs.	Sugar, coarse, doz. lbs.	Sugar, refined, doz. lbs.	Rice, doz. lbs.
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
4 4	4 7	1 11¾	5 1¾	3 11¼	3 1¼	13 3¾	17 1¼	5 9
4 0	8 0	2 9	5 9¾	4 10½	3 7	15 0¾	19 1¼	6 0½
3 8½	6 1½	1 5	5 11½	4 1¼	2 7½	13 8	20 3½	6 0¾
3 1½	7 5	1 5¾	5 9	4 9	2 5½	12 7½	17 11½	4 6½
3 6	9 0	1 4	5 2	4 11½	2 11¾	13 1½	19 1¾	5 2½
3 7	10 6¾	1 6	5 6	5 4½	2 2	16 0	21 6¾	4 4¾
.....	.....	.....	6 10½	5 3¾	.....	14 4½	19 4	6 0
.....	8 4	.....	8 0½	6 3	3 0	8 6	12 6	3 6
.....	12 0	1 0	.....	.....	.....	9 0	12 0	.....
.....	.....	.....	.....	.....	.....	.....	10 0	.....
.....	11 0	.....	5 0	4 6½	2 2	6 9	9 6	.....
.....	8 2½	0 7½	5 4	4 3¾	4 0	7 2	12 9½	3 3
3 8½	8 6½	1 6½	5 10½	4 10	2 10¾	11 9½	16 11½	4 11½

CHAPTER XVIII.

ON THE PRICE OF MATERIALS.

Iron, Lead, and other Metals. Glass.

I PROPOSE in this chapter to deal with materials employed in domestic economy, and in particular with such records of metals and metallic products as are entered for use and consumption by weight. As I have frequently had occasion to state, the accounts would have given ample information had it not been the case that, in the progress of social life during the seventeenth century, the artisan becomes a contractor and an employer of labour, and engages (no doubt supplying a bill of particulars, examined at the time and afterwards thrown aside) to carry out some work, the gross charges of which alone are entered in the account. Naturally, the corporations (whose expenditure was large, whose margin over current charges was narrow, and who had numerous members whose leisure was sufficient for supervision, and whose duty and interest equally stimulated them to economy) continued to make purchases in gross, and to deal them out to those whom they employed, longer than private individuals did. At last however they fall under the customary influence, and the phrase, *ut patet per billam*, effectually hides the information one seeks.

IRON. The custom of purchasing iron in mass and doling it out to the local smith, once universal, lingers in private families well into the first quarter of the seventeenth century. Certain dockyard accounts which I have discovered show that the practice continued in the Admiralty after it had been

disused by private persons, though even in the dockyards purchases were made of finished goods.

Two kinds of raw iron are designated, Spanish and forest, the latter being probably Sussex produce, this county being for some part of the seventeenth century the principal source of the best English iron. In course of time the exhaustion of the forests caused the abandonment of the industry. There is a story that the last considerable contract for Spanish iron was the supply of the rails which were put round S. Paul's church in the time of Anne, and remained there till recent memory.

Raw iron is bought by the ton, the hundred-weight, and the stone of (I conclude) fourteen pounds. Shuttleworth buys by the ton four times, his accounts informing us that on the third occasion (1591) he bought his Spanish iron at Liverpool. The four prices are £15 8*s.* 8*d.*, £14 4*s.* 11*d.*, £12, and £12, and on the first occasion it is stated that the Spanish iron came in bars of fifty to the ton, i.e. from 44 to 45 lbs. a-piece. The rate seems to indicate a dropping market, though there was war between England and Spain during the years in which the last two purchases were made. The dockyards between 1591 and 1625 buy iron in bulk, both Spanish and forest, distinguishing the former as small and great, by which I presume is meant the size and consequently the handiness of the bars purchased. The small is generally about 20*s.* a ton dearer than the large. In 1590 a considerable quantity of Spanish iron is bought in London at £12. There is no material difference between the price of Spanish and forest produce, a fact which confirms me in the belief that the latter is Sussex iron. In 1605 and 1610 Shuttleworth buys his iron at York. He was then engaged in rebuilding Gawthorp Hall, and his purchases are very large.

Sometimes the Spanish iron is described as fashioned into spikes, bolts, and other articles needed for ship fittings. Such are the purchases at Deptford, Chatham, Limehouse, London and Portsmouth in the years 1599 and 1600. These have

been treated as wrought and finished iron. The highest rate is that paid occasionally for anchors.

Lord North, whose accounts illustrate the earlier period, also buys raw iron at 13*s.* 4*d.* the cwt. in 1583, at 12*s.* 5*d.* in 1584, at 12*s.* in 1586, at 17*s.* 4*d.* in 1587, at 14*s.* in 1588. These are probably purchases of Spanish iron. There are few other entries of raw iron by the cwt., as at Cambridge in 1591 and 1598 at 12*s.*, and 19*s.* 3*d.* in Oxford in 1690, and I cannot help thinking that the old custom was revived in the latter purchase, as the price is given by the hundred at 14*s.* 3*d.* and 16*s.* 2*d.* Shuttleworth buys by the cwt. in 1601, 1605, 1610 and 1618.

Lord Pembroke buys by the stone at 1*s.* 6½*d.* in 1583, and at 1*s.* 8½*d.* in 1584 and 1587. In 1616 Shuttleworth gives 1*s.* 6*d.* the stone. The note of prices in the same year by the pound proves that the stone was of fourteen pounds.

In 1627 some iron shot described as saker shot is purchased at 15*s.* the cwt., and in 1654 large quantities of shot, a hundred tons in London and 60 tons in Portsmouth, are bought at £11 and £12 the ton. These are probably of cast-iron. In 1675 minion round shot in London costs £12 the ton. In 1674 iron ordnance is at 21*s.*, in 1675 at 16*s.* the cwt. In 1658 a 'cast-iron plate' is bought at the rate of 15*s.* the cwt., the only entry of cast iron under the name which I have found. I have some suspicion that the brewhouse grate of 1591, nearly half a ton in weight at 12*s.* a cwt., is cast-iron also. I have found cast-iron at an earlier period. See vol. iv. p. 399.

There are a few entries of iron wire, generally bought for the college clock, and at high prices. In 1634 it is at 1*s.* 4*d.* the pound, in 1645 at 1*s.*, in 1653 at 2*s.* 4*d.* An iron bell-clapper is bought in 1661 at 1*s.* 2*d.* the pound, and I have omitted this entry from the year's average, as I have also the screws and nuts at Cambridge in 1700, where the price would have given a false impression of the averages. But I have included, though with hesitation, another clapper of Spanish iron in 1637 at 7*d.* the pound. But I have omitted an entry of iron work at 9½*d.* the pound in 1632.

There are a few entries of old iron sold, at from 1½*d.* to 1*d.* the pound, i. e. from 14*s.* to 9*s.* 4*d.* the cwt. The price does not differ materially from that of raw iron, and taken with wrought iron, one can infer that generally the cost of forging or working iron was from 2*d.* to 2½*d.* the pound in most articles, but higher when special skill was needed or special difficulty arose.

There are only two entries of steel, one by the gad (so familiar and common in earlier times) at 4*d.* in 1583, another at 5*d.* the pound in 1625. I conclude that by this time the smith knew how to produce steel, especially if he used, as he evidently could use, charcoal-smelted iron. Steel was used for the edges of cutting instruments.

The residue of my entries, from which I have compiled such yearly evidence as I have discovered and have drawn the decennial averages, is of wrought or fashioned iron only. The variations in price from year to year are very great, as might be expected from the very various character of the work which the smith supplied. Thus in 1592 the iron-work at Eton and the window-bars at All Souls College give an average of 26*s.* the cwt. But next year King's College pays at the rate of 46*s.* 8*d.* for a casement, in which of course neater and more careful work was needed. Wheel and cart clouts and wheel tires were rough work, and the price is relatively low, as one may see by turning to the years 1603 and 1604. But iron trivets are a very different affair, and cost by weight twice as much as these commoner articles do.

Since writing this paragraph, I have discovered among the Rawlinson and Gough MSS. a few accounts which illustrate the price of iron in the seventeenth century, and generally at its close. The most significant are three in number, all being London accounts. The first is the cost incurred by the City, in rebuilding Newgate gaol, in 1630, 1631; the second is of the purchases made on behalf of the city churches, rebuilt between 1671–1692 inclusive; the third, those for the repair of Westminster Abbey, beginning in 1697, and continuing to

the date at which these volumes close. The purchase is chiefly of cramps and bars, those of Newgate, called locket bars, being very substantial and carefully wrought. In the earliest entries the cost is 42*s.* the cwt. In the second, from 1671 to 1692, it is at an average of 36*s.* 2*d.* In the third it is 35*s.* 8*d.*, or taking the three together by the ton at £37 18*s.* 11*d.* In the country iron seems to be dearer. In 1676 bars cost the Norwich chapter 56*s.* a cwt. and two chimney dogs are bought at the rate of 37*s.* 4*d.*

The greatest variety occurs in the cost of forging anchors. In some cases, as in 1592, only the cost of the iron is given, and the entry has not included the labour. In 1600 the rate varies from 56*s.* 8*d.* the cwt. to 27*s.*, in 1626 from 33*s.* to 41*s.* There is a great variety also in the cost of iron dogs, bought frequently in the dockyards, at prices ranging from 26*s.* the cwt. to 44*s.* 4*d.* I have no means of determining what these articles are. I find a kitchen dog nine and a half pounds weight quoted at Winchester in 1651 at the rate of 37*s.* 4*d.*

But though the annual averages present such very various prices, they are corrected in the decennial and general averages, as the cheap products are set off against those which are dearer. I make no doubt that in this form the entries which I have collected indicate pretty closely what a purchaser in the seventeenth century would have to pay for wrought iron articles, and that the general average for the whole time would not be disturbed if five times as much evidence were discovered.

It is clear that during the thirty years 1633–1662 inclusive, iron was considerably heightened in price. Common and ordinarily cheap articles are very much dearer, for prices are nearly doubled in 1640, 1644, and 1645, 56*s.* a cwt. for iron bars being an enormous price. I know nothing which will account for this. The Sussex iron-works were in their fullest activity, as I have pointed out above (p. 73), in the last of these decades, when a notable rise in the assessment of Sussex to direct taxation is published. Of course if the quality was very high and the cost of refining or puddling was increasing,

such a fact might account for the price. Or the rise in the cost of labour may explain it. Or the general state of the country may account for it. It will be observed that the highest average prevails in the ten years which immediately precede the outbreak of the Civil War.

The price of wrought iron continued to be very high, and the facts prove that the cost of working the article was considerable, and that the art of the iron manufacturer was still in its infancy. Wrought iron could be procured on an average at no lower price than £36 15*s.* a ton, and the cost of the material must have seriously crippled the agriculturist. And though after the first decade, and on making allowance for the dear period referred to above, the cost of iron is almost stationary, a comparison of the cost at which this necessary article was procured at an earlier period, as disclosed in the volumes of this work already published, with the rates subjoined to this chapter, will show that as far as implements and tools are concerned the seventeenth-century farmer was no better off in this respect than his fourteenth or fifteenth-century ancestor, and though there is no record of his grievances, that he had as much reason to grumble at the excessive cost of iron in dry seasons and the loss he consequently incurred as those farmers of old had whose complaints have been quoted.

NAILS. The commonest entry in the accounts are of lath nails purchased for the lath and plaster buildings which were so common at the time, or more rarely for ceilings. During the first twenty years they are regularly bought and stored. Afterwards the note of their purchase is irregular, and finally they almost disappear, though they are found in three London entries for the years 1698–1700 inclusive. Lath nails are generally bought by the thousand, or by the sum of 10,000.

Lath nails are found in forty-seven years during the period before me. The price varies very little, the decennial averages as far as they are represented standing as follows:—

1583–1592 ... 1*s.* 4½*d.*	1633–1642 ... 1*s.* 8*d.*
1593–1602 ... 1*s.* 4*d.*	1643–1652 ... 1*s.* 3*d.*
1603–1612 ... 1*s.* 5*d.*	1653–1662 ... 1*s.* 7*d.*
1613–1622 ... 1*s.* 3½*d.*	1663–1672 ... 1*s.* 10*d.*
1623–1632 ... 1*s.* 4¼*d.*	1693–1702 ... 1*s.* 4*d.*

The general average therefore is a little over 1*s.* 5¼*d.* Lath nails appear to have been about the size and about the price of what are commonly quoted as three-penny nails.

The next commonest entry is of nails designated by pence. They range from the largest, twenty-four pence, to the smallest, two-pence, and once (1593) a penny. Originally this appears to have been the price by the hundred, but as time goes on the article is sold at rates varying from the original designation. The largest kind of nails are generally bought by the hundred, the less by the thousand. Sometimes the nails are specified by their length—three-inch, two-and-a-half inch, one-and-a-half inch, and inch. One also reads still of brods, clout nails, bushel nails, lead nails (which had I suppose broad heads), and reparation nails. Lastly, nails are quoted without any reference to their size and destination. In earlier times the names given to the different kinds were exceedingly numerous.

In 1645 and 1653 nails are bought by weight, and it seems likely that the price by weight is fairly significant of the size of the article. In the first year the price is 5½*d.* the pound, in the second 6*d.* It is true that these two entries are in the dear time. But I should conclude that occasional, or even continuous high prices of iron would have less effect on the price of nails than on any other iron produce. The article was in constant demand, was within the skill of every smith, was regularly kept in store by him (as I can well remember before the days of machine-made nails), was a bye-product of his craft when he was not engaged in any definite work, and was manufactured from scrap iron, the better for being old and worn. Such conditions of an industry tend to keep the price steady and to keep it low. I should expect that nails

by weight would be dearer than ordinary iron work, but cheaper than the amount of actual labour expended on them would suggest. The highest priced wrought-iron-work which I have found other than wire is nuts and screws at 10*d.* the pound, ordinary iron-work at the time being valued at 4*d.*

Nothing illustrates the change of manners in the seventeenth century better than the cessation of these purchases. In my earlier volumes, especially those of the fourteenth century, the purchase of raw and manufactured iron for domestic and agricultural purposes is exceedingly common, indeed universal. I was able to construct tables, and generally without gaps, not only of iron and iron-work, but of such articles as plough-clouts and wain-clouts, plough-shoes and nails. These implements, or conveniences, were bought in bulk, served out as need arose, and treasured. It appears that, in the general rise of prices, iron goods were fully affected by the causes which influenced other products in demand. But the workman has become a dealer on his own account, a small capitalist with a stock of goods, which he sells by retail, or quotes according to their price in his contract and bill of particulars. The numerous storehouses of the manor-house or corporation cease to be a feature in the business of the establishment, and the record of values could only be fully recovered if bills of particulars, the most perishable of all details of particulars because of the most ephemeral interest, were recovered.

METALS.—LEAD. Information as to the price of lead is fairly full. The various corporations purchased it in large quantities from time to time, either in sows or pigs, or ready rolled, or fashioned into pipes and gutters, hiring the migratory plumber in the former case to cut or roll it, and paying him generally by the piece. Buildings were very frequently roofed with lead, and even when tiles or local slates were used, lead was often needed for gutters and pipes. Thus occasionally very large purchases were made, as at King's College, Cambridge, over two tons are bought in 1588, and a similar

quantity in 1592 and in 1617. In 1656 New College, Oxford, buys a large quantity in exchange for its old lead. In 1604 Eton makes a very large purchase in pigs, each of $4\frac{1}{4}$ cwts. in weight. But the largest purchases of this College were made in the years 1690–1698 inclusive, when it was engaged about its new buildings. During these years the College purchased no less than 35 tons, 13 cwts., 3 qrs., 2 lbs., apparently in pigs as a rule, as the price indicates. From the New College entry of 1656 it would seem that the difference between the value of old and new sheet-lead was *3s. 6d.* the cwt., and that this therefore is the cost of smelting and casting. Had the localities which supplied me with information been more numerous, I have little doubt that the table would have been continuous. As it is, the particulars are quite adequate for inferences.

Lead is bought by the fother, the ton, the hundredweight, and the pound, by the last-named not infrequently in large quantities. The commonest weights are the hundred and pound. Once (1589) there is the purchase of a webb. But it is as before difficult to interpret this expression, as to whether it is a weight or a shape. In 1597, purchases of 'web lead ready cast' seem to indicate that it was the latter. It seems to be the same as the tela of the fourteenth century. According to Halliwell it is a sheet already cast.

The price of rolled or wrought lead, if I can with certainty assume that all the entries taken under this head are of the article in a fit condition for immediate use, varies very considerably. This, as in the case of iron, though in a less degree, is due to the very different degrees of labour and skill needed for fashioning the metal into the object for which it is designed. It cost less trouble to run lead into sheets than to mould or smelt it into pipes and to fashion it into gutters. Again, when an order was a very large one, as in the cases referred to above, it is probable that the purchaser dealt on more advantageous terms, though I have noticed that a few pounds are often bought at no higher price than two or three

hundredweights. I have little doubt that the average of the last two decades is lowered by the very large purchases made by Eton, effected probably in London, and conveyed to the College by river carriage. Still I am convinced that, on the whole, the ordinary purchaser in Oxford, Cambridge, Winchester, and Eton would have given on an average of the whole period £16 18*s.* 4*d.* the ton for rolled or sheet lead.

It is well known that pure lead is much more affected by atmospheric influences than a metal which is much less carefully refined. Now our ancestors certainly got most of the native silver from the galena which is found so abundantly in England. But the process by which they extracted it, viz. roasting the lead till it was thoroughly oxidised and searching for the residual silver after removing the oxide, was by no means so complete a separation as the art of the modern smelter has made the process to be. Hence the lead of two centuries and more ago was more capable of resisting the weather than the modern product is, and some of the old lead is exceedingly enduring. I do not know whether the leaden pipes of the Bodleian quadrangle (stamped with the founder's cypher) have ever been renewed, or the roof of Radcliffe's Library has been more than mended, though the latter is a good deal worn by visitors. If neither has been restored, the lead has served its purpose in the Bodleian for more than two centuries and a half, on the Radcliffe for more than a century and a half. Modern lead would not last for a third of the shorter time.

During the twenty years 1663–1682 the price of lead is very high. All metals except iron are dear during this period, as we shall see in dealing with them. The entries too are comparatively few, and the price is probably heightened by the purchase, as in 1665, of a small quantity of bullets at a high price. Still Winchester gives a high price for over five hundredweight in 1666, and Cambridge a very full price for nearly the same quantity in 1667. So again in 1668 and 1669. These entries convince me that there was, owing to some cause,

a real and considerable exaltation in price. Lead is always cheapest in London, see for example the prices of 1683 and 1684, and it may be that the Plague and the Fire had seriously and for a long time dislocated the cheapest market in which purchasers could deal. The reader should note that lead is less than half the price of iron, a fact which speaks volumes for the condition of the arts in the seventeenth century.

A few entries of lead by the fother between 1584 and 1639, in which year the last entry of this weight occurs, give an average of lead, undoubtedly in the mass, of £8 4*s.* 10½*d.* Two early entries of lead by the cwt., in what is plainly the same state, give an average of 7*s.* 2*d.* A series even more suggestive comes from the Chatham dockyard, of lead in sows, between 1619 and 1630, and gives an average of 12*s.* 6½*d.* Now during this time the price of wrought lead, on the average of sixty years, is 15*s.* 2*d.* Thus the ton of lead in the second series is £7 4*s.*, in the third £12 10*s.* 8*d.*, while the fother when expanded into the ton is £8 9*s.* 1*d.*, the price of wrought lead also by the ton being £15 3*s.* 4*d.* In other words, the average of unwrought lead from the three sources is £9 7*s.* 9*d.* the ton as compared with £15 3*s.* 4*d.* for wrought or run lead; or, in other words, the cost of manufacture adds nearly sixty-five per cent. to the raw produce. In the fifteenth and the early part of the sixteenth centuries the difference was eighty per cent., in the last forty-two years thirty; but the spoil of the monasteries, which it must have taken some time to distribute, when one came to the lead, is the explanation of the fact. My contrast, as on other occasions, is between what is plainly raw lead and various forms of manufactured product.

But the same sources which have enabled me to illustrate and confirm the inferences which I drew from such information as I had before me as to iron, do the same service on the cost of lead. The kinds employed by builders were two, ordinary rolled or sheet lead, and mason's lead, the latter being scraps or cuttings purchased for the purpose of melting in a ladle, and running into the cramp irons with which the stones were

fastened together in the building. Entries for the city churches are found between 1671 and 1694, those for Westminster Abbey from 1697 to 1702. The price is generally declining, for in 1671 the average is 17*s.* 4*d.*; in 1694, 14*s.*; and in the Abbey purchases there is a slight rise, for the price in the first year is 14*s.*, in the last 15*s.* 6*d.* The average in the first series, eighteen years being represented, is 16*s.* 9½*d.* the cwt., or to be more exact £16 16*s.* 1¼*d.* a ton. Mason's lead is on an average £14 12*s.* 6*d.* a ton. The average of the Westminster Abbey purchases is a fraction over 15*s.* a cwt., while mason's lead is uniformly 13*s.*, while the average of the two purchases is £15 18*s.*

SOLDER. This article is sometimes explicitly called tin or *stannum*, sometimes *ferramentum*. Solder is chiefly used it appears to strengthen the joints of lead, to mend holes in its surface, and to fasten the ends of casement fittings. It may have been also employed to solidify iron fittings, but its high price seems to suggest that it is more probable that iron rails were fixed in stone by lead run into the hole in which the rail or bar was set.

Solder as a rule rises steadily in price up to the end of the ninth decade. All evidence for the tenth is wanting. During the last twenty years the price falls. In the later period, it is not bought by any means so extensively by the corporations as it was at an earlier date, for, as I have said before, they hire the plumber, and let him debit them with the solder which he consumed out of his own stock.

Magdalen College generally calls solder *stannum*, and indeed so do one or two other Oxford Colleges. But I do not think that tin can be identified with solder. For example, King's College, Cambridge, buys solder in 1605 at 46*s.* 8*d.* the cwt. But tin, of which the same corporation buys 16 cwt., costs 72*s.* the cwt. In 1611, at Cambridge, tin costs 102*s.* 8*d.* the cwt., solder 56*s.* The tin was bought to make organ-pipes, and in 1645 Cambridge sells these pipes at 112*s.* the cwt., Eton at 102*s.* 8*d.* In 1646, 1647, 1648, 1649, 1650, the new

or intrusive Fellows of Cambridge continue the sale of these pipes at 112*s*. In 1645 solder is at 8*d*. or 9*d*. the pound, or from 74*s*. 8*d*. to 84*s*. But in this year organ-pipes are sold at 112*s*., and at 103*s*. 4*d*. Generally sales of organ-pipes are at 112*s*., and this price is, I submit, inconsistent with the price of solder. That solder contained a large proportion of tin mixed with the lead is indicated or even proved by the price, but it was I believe a union of the two metals in generally uniform proportions. For a short time the price of solder at All Souls College indicates an inferior article, but later on the College gives as much for solder as its neighbours do.

Solder is occasionally bought in very large quantities, and then, as a rule, the purchase is effected at cheaper rates than ordinarily. Thus at Cambridge, in 1598, 100 lbs. of solder are bought at 5*d*., while 12 lbs., also designated tin, are at 1*s*. In the same year too the prices often vary; Eton in 1600 buys at 5½*d*. and 7*d*. It is not improbable that the retail price varied by the demand of the consumer, or the quantity supplied. I do not also find that localities are named, in which this article is specially purchased, as is the case with some metals. Nor is it ever quoted as old, or as in any sense recovered from its original use. It varies also less, as far as the locality is concerned, than other common metals do. For example, in 1653 it is exactly the same price at Cambridge, Oxford, and Winchester. It is however generally cheaper in London than elsewhere, and London prices affect Eton. Thus in 1698 Eton buys the large quantity of over eight hundredweight at 74*s*. 8*d*. the cwt. This is no doubt a London purchase. In 1630 solder is 8*d*. a pound, the cost for the London churches is always 9*d*., for the Abbey 7*d*. the first year, and 8*d*. for the other five.

In modern times, solder is said to consist either of three parts lead and one of tin, or of two parts of tin and one of lead, in which case it goes by the name of fine solder. The price of tin and lead, scanty as the notices of the former are, show that the commoner kind, called plumber's solder, was

not that used in the time before me: it must, it seems, have been the more costly alloy, and in the case of corporations which had extensive lead roofs was a considerable annual charge. I have found no evidence of any use of solder for uniting copper surfaces.

PEWTER. Plates and dishes of this material are very extensively used, and large purchases are made. Hardly a year passes in any considerable establishment in which pewter dishes and vessels do not figure, though very often the record is rendered valueless for my purposes by the fact that the account gives only the difference of price in the exchange of old for new. Sometimes too the cost is given without any indication of the weight purchased.

Pewter vessels, plates and dishes are dearer by weight than solder, and as dear as tin. The price too rises during the first ninety years, being nearly doubled during this part of the period, and sensibly declines towards the conclusion, the dearest decade being 1653–62. The price is undoubtedly affected in individual years by the character of the articles bought, for pewter flagons are dearer than pewter dishes.

Pewter, it is said, was formerly composed of tin, antimony, and copper, the proportion of the former having been by far the largest. In the time before me, it was probably tin and lead, in proportions which I have no means of defining. It seems to me however, to judge from the difference between the price at which pewter vessels were bought and old pewter was sold, that the quantity of lead in it was considerable, and that the value which it bore was due to the skill employed in fashioning it. Thus in 1611 All Souls College buys new pewter at 1*s.* 4*d.* the pound, and sells old metal at 2½*d.* In 1620 the prices of new and old are 11*d.* and 3*d.*; in 1660 they are 1*s.* 4*d.* and 3*d.* But towards the end of the period the price of old pewter rises considerably, and the difference is not nearly so marked. There must have been therefore, I conclude, some new process of manufacture devised from which worn metal could be cheaply and readily cast or worked into new vessels or dishes.

Thus in the last year of this period, new pewter is purchased by King's College at 11*d.* the lb., while old is disposed of at 9*d.*

Pewter vessels and spoons of this period are not infrequently discovered, but I am not aware that any analysis has been made of their composition. The London dealers were incorporated into a company. In 1701 the livery had 102 members and the trade was in all probability a flourishing one. Occasionally large purchases were made. Thus in 1692 King's College buys over two hundredweight, in 1693 nearly two, in 1694 over three, in 1695 nearly there, and in 1696 over three.

Towards the end of the period a new kind of material for plates is quoted, under the name of hard metal. The first entry is by the dozen, by which I conceive is meant a dozen pounds. It costs from 18*s.* to 14*s.* the dozen, ordinary pewter being quoted at 11*s.* the dozen pounds. Perhaps the material is the same as that which at 1*s.* 4*d.* the pound is spoken of in the year before (1695) as the new fashion dish. In 1700, hard metal plates are quoted at 1*s.* 6*d.* the pound, new pewter being at 11*d.*, while old hard metal is registered at 10*d.* The material is probably some late discovery. It is said that a larger admixture of copper and antimony with tin gives a finer kind of material.

In the earlier part of the period a service of pewter is called a garnish. But the term appears to have gone out of use in the first quarter of the seventeenth century. Among the articles made of pewter I find chargers, pie plates, platters, salad dishes, pastry plates, and flagons. In nearly all cases, these articles cost more by the pound than ordinary pewter plates do, such plates being very generally used. I think it also probable that the difference in price between old pewter in the earlier part of the period from that obtained in the later is to be explained by the likelihood that pewter was originally supplied from some foreign market, that in later times the manufacture was naturalised in England, and that therefore broken stuff fetched a higher price when it could be re-fashioned at home.

The quality of pewter plates and vessels was certified by a stamp impressed on the article supplied. In accordance with a custom which has now in almost all the trades become obsolete, such a certificate was the duty of the company which represented the trade. The London livery companies owed their origin and continuance to the services which they performed, real or reputed, to the goods or manufactures with which their names were identified, and some relics of this traditional or historical service still survive with some of them.

PLATE. Several entries will be found of silver plate, and one of gold. There are also records of the price of raw silver, and of broken or worn-out plate. The difference between the price of the two represents the price paid for the silversmith's or goldsmith's art. I have indeed only found one entry of silver bought, apparently to strengthen or repair some existing piece. This is in 1604, when an ounce is purchased at 5*s.*, i.e. at the price of bullion. But there are other prices of broken or worn plate sold. Most of the plate acquired by the Oxford and Cambridge corporations was from gifts, it being a custom (continued till recently) for members of these societies to present plate to the College on taking their degrees, especially if they were of some fortune.

In 1598, 1607, 1612 and 1645, broken plate is sold at 4*s.* 10*d.*; in 1608, at 4*s.* 8*d.* and 4*s.* 10*d.* In 1685 plate is sold at 5*s.*, in 1688 at 5*s.* 4*d.* and 5*s.*, not probably because it was spoilt, but because it was out of fashion, or the owners who were making other purchases wished to meet the cost by getting rid of their old stock. The difference then of price between worn or broken plate and new, about 9*d.* an ounce, is the cost of manufacture and stamping.

Plain manufactured plate, such as silver cups and spoons, was bought at the cheaper rates, at about 5*s.* 6*d.* an ounce. Such were the salt-cellar and spoons purchased by Lord North in 1583, and the plate bought by Magdalen College in 1585 and 1586 and subsequent years. But when this corporation bought the 'Magdalen tupp' in 1602 they gave 7*s.* 2*d.* an

ounce, for that was no doubt an article of very elaborate workmanship. Most of this plate, and probably the 'tupp,' went into the New Inn Hall melting-pot in 1643. It is only after an interval that the Colleges begin to buy plate again.

In 1686 Caryll buys a silver lamp at 7*s.* 6*d.* an ounce, a tobacco-box at 7*s.* 6*d.* in 1697, and a coffee-pot at 7*s.* in 1698. In 1689 the same family buys a hand-candlestick at 6*s.* 6*d.*, and two salvers at the same price. But the price by the ounce of plate in 1688, 5*s.* 9*d.* and 5*s.* 4*d.*, seems to suggest that the remuneration of the silversmith had not materially increased during the century.

In 1608 and 1614, Eton College bought plate of Hugh Middleton, described as being of the Golden Tun, Cheapside, and subsequently renowned as the projector of the New River Company. This scheme was commenced in 1608 and completed in 1613, the reservoir being placed at Clerkenwell and the water being distributed in elm pipes over the city. Middleton also attempted a considerable enclosure of land near Brading harbour, in which he was unsuccessful, and the establishment of oyster breeding ponds at the same place.

The gilding of plate does not add much to the cost, though the work was very well done. In 1587, the corporation of Norwich buys a gilt cup of considerable size at 5*s.* 8*d.* the ounce. A gilt salt costs 6*s.* an ounce in 1601, and parcel-gilt spoons in 1604 cost 5*s.* 10*d.*

I have found one entry of the purchase of gold plate. Caryll, in 1689, buys a gold snuff-box at £5 18*s.* 1½*d.* the ounce, a considerable price as compared with the value of the material, and one which suggests that the workmanship must have been elaborate and artistic. I have also noted from time to time the cost of purchasing gold coin. In 1661, it is ten per cent.; in 1663, 11½. Guineas cost 21*s.* 6*d.* in 1673 and 1680, 21*s.* 8*d.* and 21*s.* 6*d.* in 1683, 21*s.* 6*d.* in 1685, 22*s.* in 1697 and 1698. The price however at which guineas stood during the recoinage is given by Houghton, and has been commented on by me in my 'First Nine Years of the Bank of England.'

The exchange from silver to gold, and the inconvenience of having to follow the bullion prices of the latter metal, sometimes occasioned a considerable loss to the recipients of money, of which note is now and then taken in the accounts, and recognised in the audit of them.

Under the year 1605 will be found an entry of gold-leaf—900 leaves at 7*s.* 6*d.* the hundred. It was purchased for the decoration of King's College organ. In 1700 Wren buys 45 hundred of thick gold leaf at 12*s.* the hundred, 500 thin at 5*s.*, and 22 books of leaf at 3*s.* each. This was for gilding parts of the Abbey.

BRASS AND COPPER VESSELS AND IMPLEMENTS. These frequently appear in the accounts for the kitchen and brewhouse, brass being generally a good deal cheaper than copper. It may be of interest to make some comments on individual purchases.

In 1584 Lord North buys a copper brewing vat at 93*s.* 4*d.* the hundredweight, or 10*d.* a pound. In 1586 it is, for a similar purpose, at 1*s.* in Cambridge. In 1589 a copper kettle is bought at 8*d.* a pound in London. In 1594 a new copper bottom is put to a brewing vat at Cambridge at 10*d.* a pound, and seems to have been riveted to the older portion with copper nails which are bought at 1*s.* the pound. In 1599 a large copper kettle is bought at 11*d.* in Chatham. At Eton in 1600 copper is bought for the brewhouse at 1*s.* In 1611 it is bought at 10*d.* From 1619 to 1630, copper kettles are priced in purchases for navy stores at Chatham and elsewhere at from 1*s.* 5*d.* to 1*s.* 8*d.* the pound; and in one of these years, copper again for the brewing vat is bought by King's College at 1*s.* 6*d.* In 1628 a great kettle is at 1*s.* 6*d.* in Cambridge. In 1639, Eton buys a new copper vat at 168*s.* the cwt., selling the old one at 91*s.* In 1648, it buys a bottom to the kitchen copper at 1*s.* 6*d.*, selling the old at 9½*d.* In 1654, brass and copper, the price of which now approximates, are bought for navy stores at £99 the ton. In 1683, Eton again buys a new copper of large dimensions for the brewhouse, the weight

being nearly 13 cwt., at 1*s.* 6*d.* the pound, or 168*s.* the cwt., exactly the price given forty-four years before. But it sells its old copper at 11*d.* the pound, or 102*s.* 8*d.* the cwt. In 1689 a copper dripping-pan is bought at 1*s.* 6½*d.* the pound. In 1697 a new copper costs 1*s.* 7*d.* the pound; and in 1698, copper for the kitchen boiler is bought at 1*s.* 8*d.* The price evidently rises through the period, from 10*d.* to 1*s.* 6*d.* or thereabouts. But the price paid for copper vanes and other decorations to the city churches is much higher. In 1677 a copper ball costs 2*s.* 6*d.* a pound. In 1679, the copper for the Bow Church dragon, 144 lbs. in weight, is at the same price. In 1680 the gridiron vane for S. Lawrence's Church is at 3*s.* 6*d.* a pound. Two vanes in 1681 are at 4*s.*, and in 1687 a copper vane, eighty-three pounds in weight, is at 4*s.*, and a ball and flower pot at 2*s.* 6*d.*

Wrought brass is cheaper than copper; in 1583 it is at 6*d.*; in 1585 (if I am right in thinking that the dripping-pans, and again in 1586, are of this material), at 5*d.* and 6*d.* In the latter year Shuttleworth buys at 4½*d.*; Corpus Christi College in Oxford at 5¾*d.*, the article being a posnet. In 1590 a brass pot at Cambridge is bought at 5*d.*, brass shivers and cocks cost 7½*d.* and 8*d.* in 1591, at London. In 1592 a brass pan is purchased at 1*s.* 1*d.*, the old one sold at 9*d.* In 1595 it is at 10*d.* in Rochester. In 1599 a brass pot is at 6*d.* in Oxford, and a kettle at 1*s.*, and at 10*d.* again in Rochester. Brass sockets for pumps cost 8*d.* a pound in 1600. In 1608 a brass pot is at 9*d.*, a kettle at 10*d.*, and a kitchen pan at 1*s.* In 1610 a brass kettle is at 1*s.* 4*d.* In 1615 some brass-work is needed for the King's College bell, and is bought at 1*s.* 2*d.* But in 1617, Shuttleworth purchases a small quantity at 4*d.* In 1620 an olla aenea costs 8*d.* a pound, and the same price is given by Eton in 1623. In 1627 and 1629, Eton pays 9*d.*; in 1630, 7*d.* In 1632 Cambridge pays at the rate of 1*s.* 2*d.* for a brass pan, in 1637 at 1*s.* 7*d.*, and at 1*s.* 4*d.* for a brass kettle, while in 1638 brass pots of large size are bought at 9*d.*, all these purchases being made by S. John's College.

In 1645, brass for the mill, probably a gudgeon, is bought by Eton at 1*s.* 2*d.* In 1649, this same price is given at Winchester for mill gudgeons. In 1650, brass pans cost 1*s.* 6*d.* at Oxford, the old material being sold at 7*d.* In 1651, Dering buys a brass pan at 8*d.*, and a cauldron at 1*s.* I imagine that the three flagons bought by New College in 1652 at 1*s.* are also brass. In 1654, a brass pot at Eton costs 7½*d.* a pound, a 'mill puffe' at Winchester 6*d.* In 1656, a brass kettle at Horstead Keynes is at 1*s.* 4*d.* In 1665, brass gudgeons are at 1*s.* 4*d.*, and also in 1669. In 1670, a very large brass pot at Cambridge is bought at 10*d.*, the old one selling at 5*d.* In 1674, the gudgeons are at 1*s.* 3*d.* In 1680, a kettle, the material of which is not stated, but is most likely brass, is at 1*s.* 3*d.* In 1681, brazen vessels at Winchester are at 1*s.* 2*d.*, and next year a brass pot at Cambridge is at 7*d.*, brass pans being at 8½*d.* in 1685. In 1686, Cambridge buys brass pots, &c. at 11*d.* In 1698, Eton buys a brass furnace at 9*d.*, but Cambridge pays at the rate of 2*s.* 6*d.* a pound for two brass candlesticks.

These prices exhibit considerable variations in value, which do not seem to be referable to the cost of manufacture. Of course the age was one of bargaining, in which the seller in order to get a customer might abate of his price, or the purchaser might be able to buy cheap in the last hours of a local fair. Again, the purchaser might be willing to give a fuller price if he could deal advantageously with the old metal which he was discarding. But the figures which I have commented on will, I trust, supply adequate information as to the charges at which householders were put for the necessary vessels used in the kitchen and brewhouse. There remains one brewhouse instrument, on the purpose of which I can give no information. In 1696, Winchester College, where much beer was brewed, purchased a brass 'siphon,' weighing nearly 10¾ cwt., at the great price of 3*s.* 1*d.* a pound, a rate for which I have found no parallel.

BELL-METAL. Between 1588 and 1674 I have found several notices of the price of bell-metal. In the earlier en-

tries most of them are of material not cast. Thus in the first entry we are told that the metal cost 8*d.* a pound, the casting 4*d.* In 1591, bell-metal is at 8*d.* the pound, and the old at 4*d.* But in 1598, a new bell is bought for a Canterbury parish at 8*d.* In the next year King's College buys at 6*d.*; here material for smelting. In 1600, All Souls College buys a new bell at 1*s.*, and sells the old one at 5*d.* In 1602 and 1607 small quantities are bought at 6*d.*, in 1611 at 8*d.* and 1*s.* In 1616, a hundredweight costs 80*s.* In 1617, New College buys 406 lbs., evidently cast, at a little under 125*s.* 3*d.* the cwt. Seven entries between 1618 and 1659 are at 1*s.* a pound, or only a fraction below it. In 1665, bell-metal costs 1*s.* 2*d.* at Eton; and in 1674, bell-metal, evidently worn out, is sold at 9*d.* and 10*d.*

After the Parliamentary party got the upper hand, an order was issued that the use of organs should be discontinued in churches, and the newly introduced Puritan fellows, at once began to sell the organ pipes, which they seem to have disposed of judiciously, so as not to glut their market, for they sell for six years running at a shilling the pound. The pipes were probably pure tin. The organ-pipes at Eton are also sold, or at least 200 lbs. weight of them, in 1645 at 11*d.*

Under the year 1677 will be found two purchases of antimony in London, the former at a little over 27*s.* 3*d.* the cwt., the latter at 24*s.* But the former price includes the barrel in which the metal was packed. These purchases were made by the University Press for type-founding, the Press having at this time a great reputation for its very numerous and excellent founts of type.

In 1689, Eton College bought two pounds of quicksilver at 5*s.* for the purpose of making a barometer.

There yet remain certain prices of metals which are given by Houghton in the first few years of his publication. They are of lead, copper and block-tin, to which in one year he adds milled lead, gold, silver, and, during the troubles of the recoinage, guineas.

From these accounts we find that in London the average

price of lead by the fother is 184*s.* 6*d.* in 1693, 186*s.* 10*d.* in 1694, 214*s.* in 1695, and 188*s.* 8*d.* in 1696. In 1694, the price of milled lead by the cwt. is 18*s.* In 1693, the average price of copper by the cwt. is 94*s.* 2*d.*, in 1694 is 94*s.*, in 1695 is 115*s.*, in 1696 is 120*s.* Block-tin by the cwt. is 64*s.* in 1693, 66*s.* 1c*d.* in 1694, when there are great fluctuations in price; in 1695, 76*s.* 4½*d.*; in 1696, 61*s.* 2*d.* I have elsewhere commented on the fluctuations in the price of silver, gold and guineas, in a work to which I refer my readers[1]. Taking into account that London was always the cheapest market for lead, copper and tin, Houghton's prices will be found to closely correspond with those which I have registered.

GLASS. It will be convenient in dealing with iron and other metals, now almost exclusively used for domestic purposes, to comment on the few entries of glass which I have discovered. They would have been more numerous, but for the general practice of buying quarrels or diamond-shaped panes, which are almost invariably at a penny each.

Glass has been found for only thirty-five years, and most of the entries are of the earlier period. It generally costs from 6*d.* to 5*d.* a foot. The price is 7*d.* in 1587–8, but it is probable that as the article was mainly of foreign origin, the formal outbreak of hostilities with Spain had either stinted the supply or suggested scarcity to the dealer. In 1604, Normandy glass is bought in Oxford at 9*d.*, but the same purchaser in the same year gives 6*d.* for new glass. In the next year a large quantity is bought at Eton at 4½*d.*, probably a London purchase.

There is some evidence of heightened prices in the dear years 1642–52. In 1644 Winchester buys at 8*d.*, and in the next year at 7*d.*, and in 1649 at 6½*d.*, and the price never falls below 6*d.* during the whole decade. For the rest of the time the few entries are at 6*d.*, till the last year, when new glass is bought in London at 4*d.* and Carcell glass at 5½*d.*

In 1599, Normandy glass, leaded and cemented, is bought at Rochester at 1*s.* a foot. In 1616, coloured glass is bought for

[1] The First Nine Years of the Bank of England, p. 35, and p. 171.

Corpus Christi College chapel, Oxford, at 7*d.*, and in Winchester in 1647 coloured at 1*s.* 3*d.* In 1635, when Corpus Christi College yielded to the instructions of Laud, sixty-six painted pieces were put up in the chapel at 4*s.* the piece; and at Cambridge, in 1611 and 1613, King's College fills 'holes' in the chapel with wrought glass at 3*s.* 4*d.* and 2*s.* 6*d.*

Hartlib tells us that glass was manufactured in Sussex by the middle of the seventeenth century, and at the end of the same century Houghton gives a list of the principal glass manufactories in the whole of England. It had now become a regular industry in the country. The price of glass is the most constant of all articles in use, having been relatively cheap in the fifteenth and sixteenth centuries.

The accounts, to which reference has been made before in this chapter, have also supplied evidence, between 1671 and 1702, of the price of glass, many thousand feet being often purchased in the year. The glass is sometimes described as new, sometimes as English, and one entry (1677) seems to imply that, provided the glass could be cut into quarrels, the purchaser was content to take pieces which were not squares, for such squares cost 8*d.*, while in the same year, glass not so designated is bought at 6½*d.* In 1671, the price is 6*d.* a foot, in 1672, 1673 7*d.*, in 1677 6½*d.* and 8*d.*, in 1678 and 1680 7*d.*, in 1681 6*d.*, in 1684 7*d.* and 6*d.*, both being described as new, in 1685 and 1686 8*d.*, in 1688 6*d.*, in 1693 8*d.*, in 1696 6*d.*, in 1699 7½*d.*, in 1700 and 1702 9*d.* It will be seen then that in London, from which place all these entries come, that there were considerable fluctuations in price. The quantity bought is often very large; thus in 1685 nearly 3000 feet are purchased.

The subjoined tables give the price of wrought iron by the cwt., of rolled lead by the cwt., of solder by the cwt., of pewter by the cwt., and of silver-plate by the ounce. Subjoined to them are the decennial averages.

MATERIALS.—AVERAGES.

	Iron, wrought, cwt.	Lead, rolled or wrought, cwt.	Solder, cwt.	Pewter vessels, cwt.	Silver-plate, ounce.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1583–4	28 0	18 8	64 1	74 8	5 6½
1584–5	23 4	11 8	62 3	76 0	.....
1585–6	23 4	12 10	58 0	71 6	5 6
1586–7	28 1	14 0	57 7	69 1	5 4
1587–8	.....	19 6½	57 7	66 11	5 8[1]
1588–9	18 8	10 0	68 6	56 0	.....
1589–90	26 0	7 0	65 4	.....	.....
1590–1	23 4	14 0	56 0	65 4	.....
1591–2	.....	11 8	53 8	.....	.....
1592–3	26 0	8 10	56 0	65 4	5 6
1593–4	46 8	14 0	60 8	72 4	5 6
1594–5	26 0	14 0	51 4	79 4	.....
1595–6	30 4	11 0¾	72 4	79 4	5 6
1596–7	37 4	21 0	88 8	74 8	5 3½
1597–8	.....	14 0	75 10	73 6	5 4
1598–9	37 4	10 0	70 0	77 0	5 7
1599–1600	28 10	14 10	70 6	74 8	.....
1600–1	35 1	13 3	61 9	91 0	.....
1601–2	28 0	9 0	60 4	79 4	5 7
1602–3	28 0	13 10½	60 8	84 0	6 5
1603–4	27 3	11 4	63 0	79 4	5 8
1604–5	26 5	13 9	12 3	74 8	5 9
1605–6	31 6	9 8	62 3	84 8	.....
1606–7	39 3	14 6	65 4	84 0	.....
1607–8	.....	14 4	63 0	85 2	5 8
1608–9	.....	19 9	68 5	91 0	5 8
1609–10	.....	18 8	70 0	89 10	.....
1610–1	37 4	16 0	75 8	100 4	5 8
1611–2	.....	18 8	74 8	108 10	.....
1612–3	34 2	16 10	77 0	93 4	5 8
1613–4	.....	16 4	79 4	102 8	.....
1614–5	.....	15 10	88 8	112 0	5 9

[1] Gilt.

	Iron, wrought, cwt.	Lead, rolled or wrought, cwt.	Solder, cwt.	Pewter vessels, cwt.	Silver-plate, ounce.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1615–6	.....	17 6	84 0	100 4	5 8
1616–7	.....	16 1	84 0	102 8	.....
1617–8	.....	15 0	84 0	.....	.....
1618–9	.....	15 0	86 2	102 8	7 0[1]
1619–20	27 2	16 6	86 2	107 4	5 10
1620–1	36 4	16 0	87 1	102 8	.....
1621–2	28 7	15 4½	84 0	109 8	.....
1622–3	34 0	15 0	85 7	102 8	.....
1623–4	31 4	15 9	93 4	109 8	5 7
1624–5	33 5	13 3	84 0	112 0	.....
1625–6	33 0	16 10	84 0	.....	.....
1626–7	33 1	16 10	88 8	121 4	.....
1627–8	30 0	.....	84 0	121 4	.....
1628–9	33 4	17 0	84 0	116 8	.....
1629–30	40 8	17 10	94 6	116 8	.....
1630–1	37 5	16 0	84 0	.....	.....
1631–2	39 8	15 5	84 0	121 4	.....
1632–3	39 0	.....	88 8	116 8	.....
1633–4	37 4	.....	84 0	.....	.....
1634–5	.....	.....	91 0	.....	.....
1635–6	35 0	18 8	88 8	107 4	.....
1636–7	.....	18 8	93 4	130 8	5 5
1637–8	65 4	19 6	90 3	130 8	.....
1638–9	.....	15 4	84 0	135 0	.....
1639–40	35 0	15 7	84 0	130 8	5 6
1640–1	60 8	16 10½	88 8	140 0	.....
1641–2	.....	.....	93 4	130 8	.....
1642–3	.....	.....	93 4	140 0	.....
1643–4	.....	19 3¼	93 4	130 8	.....
1644–5	56 0	17 8	93 4	149 4	.....
1645–6	51 4	.....	93 4	123 8	.....
1646–7	39 1	.....	88 8	130 8	.....
1647–8	.....	14 0	90 3	134 2	.....
1648–9	40 8	18 8	88 8	142 4	.....
1649–50	37 4	18 8	93 4	.....	.....
1650–1	.....	21 0	93 4	121 4	.....

[1] Gilt.

	Iron, wrought, cwt.	Lead, rolled or wrought, cwt.	Solder, cwt.	Pewter vessels, cwt.	Silver-plate, ounce.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1651–2	37 4	16 0½	93 4	121 4	.....
1652–3	.....	21 0	93 4	121 4	.....
1653–4	56 0	.....	93 4	130 8	5 8
1654–5	.....	13 2	.....	140 0	.....
1655–6	32 8	18 8	93 4	205 4	.....
1656–7	.....	21 0	94 6	149 4	5 7
1657–8	42 0	14 0	95 8	140 0	.....
1658–9	42 0	22 2	84 0	130 8	.....
1659–60	.....	.....	.....	.....	5 4
1660–1	46 8	.....	.....	140 0	.....
1661–2	32 8	.....	.....	130 8	.....
1662–3	.....	.....	.....	140 0	5 7
1663–4	46 8	.....	.....	130 8	.....
1664–5	33 10	23 4	93 4	.....	.....
1665–6	37 4	37 4[1]	.....	.....	.....
1666–7	32 8	21 9	112 0	137 8	.....
1667–8	56 0	23 4	112 0	144 8	.....
1668–9	37 4	21 10	.....	126 0	.....
1669–70	32 8	20 0	112 0	130 8	.....
1670–1	32 8	.....	.....	140 0	.....
1671–2	34 4	17 4	84 0	.....	.....
1672–3	31 6	19 0	112 0	.....	.....
1673–4	.....	19 0	84 0	112 0	.....
1674–5	.....	17 6	.....	.....	.....
1675–6	35 4	17 6	84 0	112 0	.....
1676–7	35 4	17 0	.....	.....	.....
1677–8	35 4	17 0	84 0	.....	.....
1678–9	.....	17 0	84 0	.....	.....
1679–80	.....	.....	.....	.....	.....
1680–1	32 8	.....	.....	.....	.....
1681–2	.....	16 6	.....	.....	.....
1682–3	37 4	15 0	84 0	.....	.....
1683–4	36 8	17 6	98 0	102 8	.....
1684–5	34 0	14 0	.....	107 4	.....
1685–6	.....	17 2	84 0	102 8	5 9
1686–7	35 4	20 2	84 0	.....	7 6

[1] Bullets.

	Iron, wrought, cwt.	Lead, rolled or wrought, cwt.	Solder, cwt.	Pewter vessels, cwt.	Silver-plate, ounce.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1687–8	37 4	16 0	84 0	102 8	.....
1688–9	35 4	.....	.....	102 8	5 6½
1689–90	.....	.....	.....	.....	6 6
1690–1	.....	10 10	.....	.....	.....
1691–2	.....	10 10	.....	93 4	.....
1692–3	41 11	16 0	93 4	84 0	.....
1693–4	.....	15 4	.....	84 0	.....
1694–5	37 4	14 6	93 4	93 4	.....
1695–6	.....	10 8½	.....	102 8	.....
1696–7	.....	.....	.....	102 8	.....
1697–8	42 0	14 0	108 0	102 8	7 2
1698–9	46 8	14 8	74 8	112 0	7 0
1699–1700	30 4	15 0	94 6	102 8	6 2
1700–1	37 4	16 3	74 8	102 8	.....
1701–2	35 4	16 1	74 8	102 8	.....
1702–3	37 4	14 9	84 0	102 8	.....

Decennial Averages.

	Iron, wrought, cwt.	Lead, rolled or wrought, cwt.	Solder, cwt.	Pewter vessels, cwt.	Silver-plate, ounce.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1583–1592	24 7	12 9¾	59 8½	68 1¼	5 5
1593–1602	33 1	13 6	67 2½	79 0¼	5 7
1603–1612	32 8	15 4¼	68 2	89 2½	5 8¼
1613–1622	31 6	15 10¼	84 10¾	104 9	6 0¾
1623–1632	35 1	16 1½	86 11	116 11½	5 7
1633–1642	46 8	17 5¼	89 0¾	130 7½	5 5½
1643–1652	43 8	18 3½	92 0	130 6½	.....
1653–1662	42 0	17 10	92 7	145 2	5 6½
1663–1672	37 6	23 0	103 3	135 0	.....
1673–1682	35 1	16 4	84 0	112 0	.....
1683–1692	36 9	15 4	88 8	99 3	6 4
1693–1702	38 0½	14 4½	86 3	100 8½	6 9
Gen. Average	36 4	16 4¼	83 7¾	109 3¼	5 9¾

CHAPTER XIX.

ON THE PRICE OF BUILDING MATERIALS.

I PURPOSE in the present chapter to comment on such building materials as I have been able to collect from the accounts which I have examined. They are far from being as copious as they were in the earlier volumes, because employers now contract with masons and carpenters, not only for labour, but for the whole undertaking. Still I am in hopes that I shall be able to bring sufficient evidence before my readers for the purpose of interpreting prices, and for the several inferences which are indirectly as well as directly derivable from the facts which have been recorded. I shall in this chapter deal with stone, lime, timber, and with bricks, tiles and slates.

STONE. Stone is used for building and paving, especially in those parts of England where it is abundant and is easily quarried. Thus in Oxford, in the immediate vicinity of which stone available for the body of the building is abundant, and stone for ashlars and quoins is accessible, the general material used for all kinds of architecture is stone, and brick is scantily or infrequently employed[1]. In Cambridge, where the quarries are distant and stone is comparatively dear, the common material is brick; as it is at Eton and Winchester. Hence all comparisons between stone at Oxford, Cambridge or any other place only indicate the cost at which purchasers were put to

[1] So important was the Oxford (Headington) stone to the valley of the Thames, that the supply of this material is alleged in the Act of 21 Jac. I. cap. 32 as a motive for improving the Thames navigation.

in procuring the article. It is only by noting the rise or fall of the price at the same place that any further inference can be derived.

Stone for building purposes is known by many names, indicating its origin, character, condition as a partly manufactured article, and purpose. Rag-stone for instance at Oxford means the ordinary product of the Headington quarries from which the shell of the numerous stone structures in that city have been regularly constructed from very early times. But the stone, though carefully selected and laid, does not weather well, and its edges have to be dressed, or its face covered by a harder and more durable product. This, as far as Oxford is concerned, is generally supplied from Burford or Taynton, as it was from early times.

Stone is bought by the load, the ton, and the foot. I conclude that the load and the ton are generally identical, and that as a rule the load contained about four cubic feet. There are occasions however, as in 1610 when Wadham College was built, on which the load is two tons and upwards. But in the same year, unless the qualities are, as is likely, different, the load looks less than the ton. I shall deal with Oxford prices first.

In Oxford, rag, the cheapest kind of stone, is ordinarily in the early years bought at 4*d.* the foot and 1*s.* 4*d.* the load. But in the first year it cost at Oxford a little over 5*d.* a foot, and the city buys eleven loads at 1*s.*, and one at even 8*d.* The civic corporation gives 1*s.* 4*d.* a load for paving rag. In 1584 freestone is 2*s.* 6*d.* and 2*s.* 8*d.* the load, while another kind, almost certainly rag, is 1*s.* 6*d.* In 1585 New College buys at 1*s.* 10*d.*, including the carriage; Magdalen College at 1*s.*, probably without carriage. The city buys sixteen loads at 10*d.*, and thirteen paving rag at 1*s.* 0½*d.*, the carriage of the former being 5*d.* a load more, i.e. it is plainly procured from Headington. In 1586 stone is again 2*s.* 8*d.*, but paving-rag is 5*d.* a foot, and ordinary stone 1*s.* 8*d.* In 1587 stone is 2*s.* 9½*d.*, and the city buys three loads at 1*s.* 6*d.* carried, and fourteen

at 1*s.* 4*d.* In the same year it purchases pebbles (probably those which it procures still from sifting the local gravel and picking out the largest ovoid pieces) at 1*s.* 6*d.* and 2*s.* 3*d.* the load.

In 1589 and 1590 freestone is 4*d.* a foot, as is also Burford stone, the better kind referred to above. Hard stone is 5*d.* But a load of stone, here plainly rag, is only 1*s.* Six loads are bought by Magdalen College at 2*s.*, and are probably freestone. In 1591, stone described as hardest is at 1*s.* 2¼*d.* a foot, hard stone at 4*d.*, and a load at 2*s.* 8*d.*, while twelve tons are at 1*s.* In 1592, the load is 1*s.* 4*d.* carried. But freestone is 2*s.*, or 3*s.* carried, and some, not designated but carried, is at 2*s.* Paving-stone is at 4¾*d.* the foot, and pebbles 2*s.* 4*d.* the load. In 1593 freestone is 3*s.* the load, and 3*s.* 4*d.* (carried) the ton. Burford stone is nearly 5*d.*, hard stone 5*d.*, and pebbles 2*s.* the load.

In 1594 large stone is at 2*s.* 6*d.* the load, freestone 2*s.* the ton not carried, and 3*s.* carried. Stone is in the quarry at 4*d.* the foot, but it costs 1*s.* the foot to carry it, as I conclude from Burford. Hard stone is 6*d.* a foot, wall-stone, by which I understand the commonest rag, is 10*d.* a load, and rag 1*s.* In 1595, rag is 1*s.* 5*d.*, freestone 2*s.* 4*d.*, and wall only 4*d.* In 1597, rag is 1*s.* 4*d.* and pebbles 2*s.* a load. In 1598 and 1599, rag is 5*d.* a foot, wall-stone is 1*s.* 4*d.* and flat stone 2*s.* a load. In 1600, 100 feet of Burford stone is bought for 25*s.*, i.e. 3*d.* a foot, of course in the quarry. Rag is now 3*d.* or 4*d.* a foot and 1*s.* 6*d.* the load, considerable quantities having been bought, probably for the buildings erected in Warden Hoveden's time. Pebbles are 2*s.* 8*d.* the load. In 1601, 9½ tons are bought and two loads at 2*s.* 8*d.*, the carriage being a little over 4*s.* the load. Rag is 1*s.* 8*d.*, pebbles 2*s.* the load. In 1602, rag is 1*s.* 4*d.*, or carried 1*s.* 8*d.*, and a ton as in last year, no doubt of freestone, not carried 2*s.* 6*d.* In 1603, rag is 5*d.* a foot, stone 2*s.* 6*d.* a ton, the carriage now being 1*s.* 4*d.* In 1604, rag is 3½*d.* In 1606, stone is 3*s.* 10*d.* a ton carried, freestone not carried 2*s.* 6*d.*, the carriage for the load being 1*s.* 4*d.*, and

wrought rag being 5½ the foot. In 1607, Burford stone is 9*s.* a load, of course delivered, and ordinary stone 1*s.* 4*d.* In 1608 freestone is 3*s.* 10*d.* a load carried, 2*s.* 6*d.* not carried, and pitching-stone 1*s.* 3*d.* a load. In 1609, rag is 1*s.* 2*d.* to 1*s.* 4*d.* a load, other stone carried 5*s.* 4*d.* the ton. In 1610 there are considerable buildings at Corpus Christi College, and Wadham is being built. Freestone is 3*s.* 3*d.*, the carriage being 1*s.* 6*d.* a ton, some 2*s.* 10*d.*, while rag is 1*s.* 6*d.* the load. I have copied the Wadham entries from the building book. They are unintelligible, except as an account of the cost of carriage. The city buys freestone at 4*s.* and pebbles at 2*s.* 6*d.* a load.

In 1612, stone is 4*s.* a ton, and 1*s.* 8*d.* carriage. In 1613, rag is 3*s.* a load, pebbles 3*s.*; and in the next year the latter is 3*s.* 8*d.* In 1615, the city buys 18½ tons of freestone at prices from 2*s.* 11*d.* to 1*s.* 6*d.*, eight load of walling stone at 1*s.* 6*d.*, fourteen load of scavelled stone at 8*d.*, six load of ruffe stone at 1*s.* 6*d.* and eight at 2*s.* All Souls College buys paving-rag at 5½*d.* the foot, and pavement at the same price, stone steps being 7*d.* the foot. In 1616, freestone is 6*d.* a foot, and stone, I presume rag, 2*s.* a load. But in 1617, freestone is 3*d.* a foot, rag 4*d.*, freestone being 3*s.* the ton. In 1618, rag is 5*d.* a foot, rag steps 6*d.* a foot, and paving pebbles 6*s.* a load. In 1619, ashlars are 24*s.* the hundred feet, almost the price of Burford stone in 1600. In 1620 Corpus Christi College buys stone at 28*s.* the ton and 6*d.* the foot. So states the record, and also that the whole cost of the stone was £6 17*s.* I do not know what the stone can be, and how thick the superficial foot was, for of course the foot cannot be cubic. In the next year, freestone is bought at 2½*d.* the foot, and in 1622 at 3*d.*, the ton being 2*s.* 9½*d.* In 1623 it is 3*s.*, as also in 1625. Pebbles in 1624 are at 3*s.* 6*d.* a load. But in 1630 freestone is 12*s.* 3*d.* a load. In 1632, stone is 4*d.* a foot at the quarry, and paving-rag is 5*d.* In 1644 stone carried is 5*s.* a load. In 1662, stone is 6½*d.* a foot; and in 1664, freestone is 3*s.* 6*d.* a ton, and almost exactly the same price in 1665. In 1669 stone is 4*d.* the foot, and the same in 1671, when it is called paving-stone. In 1672

Burford stone is 1*s.* 7*d.* the foot, carried. But in 1680 Magdalen College buys at 2*d.* the foot, an inexplicable price. This is the last Oxford entry.

It seems then that during the whole period rag could be bought by the load or ton at about 2*s.*, freestone at about 3*s.* 10*d.*, and Burford stone at about 5*s.*, and that no great change takes place in the price except when some purchase is made at abnormally low or high prices.

In 1585 stone is 4*s.* the load at Cambridge, in 1586 paving stone is at 3*s.* 4*d.*, in 1587 Lord North buys Burwell stone at 2*s.* 6*d.* the ton. In 1589 paving-stone is much higher, 5*s.* 3*d.* to 4*s.* 4*d.*; in 1591 it is 3*s.* 8*d.*, when stone is bought at 2*s.* 2*d.* the ton, and freestone at a little under 4*d.* the foot. In 1592 freestone is 5*s.* the load, in 1593 paving is at 4*s.* 6*d.*, in 1594 paving is at 10*s.* the hundred, in 1595 at 4*s.* 6*d.* and 5*s.* the load, and in 1596 rag is 4*s.* the load. In 1599 paving is 3*s.* 6*d.* the load, and in 1602 it is 6*d.* a foot. In 1603 a tennis-court is built at Cambridge, and 1790 feet of stone are used in it at 6½*d.* In 1604 three loads are at 2*s.* 6*d.*, in 1607 one at 5*s.*, as are twelve in 1610, while one is at 4*s.* 6*d.* In the same S. John's College, Cambridge, gives 14*s.* a ton for freestone. In 1611, stone is 7*s.* a load; and in 1612, 5*s.*, S. John's College giving 7*s.* a ton for sea-pebbles. In 1613 stone is 8*d.* a foot, and pebbles from 6*s.* 1½*d.* to 6*s.* 8*d.* a load. In 1620 freestone is 3*s.* a ton, and 5*s.* a load; in 1621, 7*s.* a load. In 1623 great paving-stones are at 6*s.* 8*d.* and 7*s.* 6*d.* a load; in 1627, 8*s.* carried. At S. John's College freestone is in the same year 16*s.* a ton, or a little over 9*d.* a foot. In 1631 freestone is 8*d.* a foot, and pebbles carried 10*s.* a ton. In 1634 pebbles are from 6*d.* to 4*d.* the bushel.

In 1636, stone is 8*d.* a foot; in 1646, 18*s.* a ton; Welden stone being nearly 1*s.* a foot, as it is in 1647. In 1648, freestone is 1*s.* a foot; in 1651, 10*d.* In 1655 paving-stone is 7*s.* a ton, and in 1659 freestone is nearly 1*s.* 2½*d.* the foot. In 1661 squared stone is 20*s.* a ton, and Ketton stone still dearer. In 1662, white stone is 8*d.* a foot; and in 1665, 21*s.* 10*d.* the

load, the carriage being 8*s.* 11*d.* the load. In 1666 freestone is 29*s.* the ton, or 1*s.* 2*d.* the foot, '20 feet going to the ton.' But in 1668 freestone is bought for the bakehouse at 4*d.* the foot. In 1683 new stone is 1*s.* 4½*d.* the foot, in 1692 hard stone carried is at 3*s.* 4½*d.* But in 1693 freestone is 7*d.*, in 1697 paving-stone is 8*d.* Pebbles for paving are at 6*d.* to 10*d.* the bushel, and large sea-pebbles at 10*s.* the ton, the carriage being 1*s.* 6*d.* On the whole a considerable rise is effected in this material, though it is not easy to interpret some entries.

Eton occasionally buys stone. Here, the first use indicated being for the oven, it is 7*d.* the foot in 1595 and 1597, 10*d.* in 1604, purchased in quantity for some of Savile's buildings, but 6*d.* in 1605, where a certain quantity of 'Evestone' for coping costs 10*d.* In 1616 it is a little over 7*d.*; in 1618, 1*s.* In 1620, cant pieces forming the coping of a brick wall are at 5*d.*, the measure being superficial. In 1622 it is 11*d.* a foot. In 1624 nine loads are bought at 3*s.* 8*d.*, stair-steps at 1*s.* 2*d.* a foot, Oxford stone at 1*s.* In 1629 paving-stone is at 1*s.* a foot, but stone for the oven in 1634 is at 6½*d.* only. Next year the College gives 1*s.* 3*d.* a foot for freestone, and 4½*d.* for cants, the latter price being repeated next year. In 1640 stone for the oven is bought for 8*d.*, in 1644 at 10*d.* In 1682, when some new buildings were undertaken, thirty tons are bought, cut and set at 68*s.* 8*d.* the ton, i. e. probably squared and fitted at the quarry and sent by river to the College, for nearly an additional shilling per ton is paid for carriage from the wharf to the buildings. At Eton then stone costs from 7*d.* to 1*s.* 3*d.* the foot, the highest price occurring within fifty years from the beginning of the period.

A few purchases are made at Canterbury, prices being 2*s.*, 2*s.* 8*d.*, 3*s.*, 2*s.* 6*d.*, 1*s.* 6*d.*, 3*s.*, 3*s.* 4*d.* and 3*s.*, the first purchase being made in 1583, the last in 1677. It would seem that the price of Kentish rag underwent very little change. Winchester buys at 2*s.* a load in 1651, at 4*s.* in 1652. In 1655 it gives 6*d.* a foot for freestone, 8*s.* and 9*s.* a load in 1662, and buys seven loads from the castle in 1663 at 10*s.*, the carriage costing 2*s.* a

load; and wrought stone at *6d.* a foot. In 1668 it gives *5s. 6d.* a load, and buys over a ton of firestone. In 1673 it gives *10d.* a foot, and in 1696 buys a quantity of firestone, the amount not given, but at a high price, probably *40s.* a ton, and from a distance.

Purbeck is bought at Eton in 1624 at *4d.* a foot, and at Winchester constantly. It costs *6d.* in 1649, and appears to be brought to the doors at that price, for some not carried is at *2½d.* It is at *4½d.* without carriage in 1662, at *6d.* in 1674 and 1675. Marble is bought for paving the chapel in 1636 and 1639 at about *1s. 8¼d.* the foot in the first year, and at *2s.* in the second, the latter material being named 'black Brabant.' A little more is purchased in 1646 called white at *2s.*, probably for repairs after the Parliamentary occupation. In 1702 the chapel of King's College is paved at a cost of £300.

In 1630, the City of London, rebuilding or repairing Newgate gaol, gave *1s. 9d.* and *1s. 6d.* a foot for Ketton stone, *1s. 8d.* for Portland, *1s. 2d.* for Oxford, *5d.* for Purbeck. For Kentish ashlar they paid *8d.* a foot, and for Kentish pan *1s. 4d.* No stone appears among the items in the repair of the City churches. But Wren purchases stone for Westminster Abbey. In 1697 he gives *8d.* a foot for new Purbeck, *2s. 3d.* for Burford ashlar, and *3s. 3d.* a foot for Skew Burford. In 1698 he gives *2s. 3d.* for plain freestone, *3s. 3d.* for Skew Burford, and *3s. 6d.* for freestone drip. These are by the foot. He also buys paving stone at *10s.* a ton. In 1699, Burford skew is *3s.* a foot, Portland ashlar *2s. 6d.* In 1700 Burford stone is *3s. 9d*, Guildford cubic *1s. 4d.* and Purbeck *8d.* In 1701 Burford stone is *2s. 2d.*, Guildford *1s. 4d.* In 1702 Burford ashlar is *2s. 2d.*, Portland *2s. 6d.* and paving stone again *10s.* a ton. Wren was an excellent judge of materials, and his materials have stood the test of the London atmosphere, under which the New Palace of Westminster was being rapidly turned into Epsom salts.

MILLSTONES. A few entries of these articles have been found. But they are generally of inferior quality, and not

employed for grinding wheat. The King's College millstones are used for crushing malt. Such is the single stone at 11*s.* in 1585, the pair for 33*s.* 4*d.* in 1586, the stone at 20*s.* in 1590, and another at 19*s.* in 1591, which came from Ely; a pair in 1594 for 53*s.* 4*d.*, one at 14*s.* in 1615, a pair for 60*s.* in 1621, a pair at 32*s.* 6*d.* in 1624, a pair at 40*s.* in 1629, a single stone at 21*s.* in 1631, another at 30*s.* in 1633, a pair for 40*s.* in 1635, a pair at 60*s.* in 1640. From incidental notices in the King's College accounts I find that this was a horse-mill. With a similar purpose, Eton buys a pair in 1586 for 33*s.* 4*d.*, another pair in 1596 at 70*s.*, one for 50*s.* in 1646, a pair 'carried and fitted' in 1670 for 101*s.* 6*d.* I conclude that the Winchester purchases are of the same character. A single stone carried in 1645 costs 36*s.* 8*d.*, one in 1681 at 47*s.*, a pair in 1686 at 65*s.*, and a single stone in 1693 at 44*s.* with carriage. The average of the Cambridge pair is almost exactly 42*s.* 3*d.*, of the Eton 79*s.* 8*d.*, at Winchester 80*s.* 1*d.*

In Basingstoke, the Wardens of the Brotherhood of the Holy Ghost give with the carriage 106*s.* for a single stone in 1597, possibly a French or Rhenish article. But in 1610 they only pay 30*s.*, in 1613 20*s.*, in 1637 40*s.* In 1600 Lord Spencer pays 133*s.* 4*d.* for a pair.

The most important purchases are those made by the City of Oxford in the years 1599 and 1603. In the former year the city gave £15 for a pair of millstones, in the latter £25 9*s.* 1*d.* These were unquestionably of the best French burrs[1]. In 1567, 1572, 1574 and 1581 the city purchased other stones, at £15 6*s.* 8*d.* the pair, carriage included (see vol. iii. p. 392; vol. iv. p. 426).

The Oxford City Mill was near the castle, and the citizens claimed to compel all the inhabitants of the town to grind their corn at the city mill. To be just to them, they seem to have furnished their mill with the best appliances with which

[1] I have been informed on the best authority (my friend Mr. George Palmer of Reading), that even at this time no grinding instrument is equal, for producing the best flour, to the French burr.

the age supplied them, and to have in particular stinted no expense for stones. But people at the beginning of the seventeenth century were beginning to be very dissatisfied with monopolies, and with the miller's privilege in particular. The miller in the literature of the time is not a popular personage, and stories became proverbial about his greed and dishonesty.

Merton College determined to come to the rescue of its Holywell tenants. The College had a manor, the privileges of which were very considerable, and for which the College contended vigorously. I have pointed out in an earlier volume, i. 128, what were some of the rights which this corporation as lords of the manor exercised. Thus the Merton register informs us, under date of August 21, 1606, that one Gabriel Poultney, a Master of Arts of S. Alban Hall, was drowned in the Cherwell near Holywell meadows, and the coroner of the city sat on the case. The College protested that he had no jurisdiction in their manor, which was not included in the county or the city. The register states that this was done 'in order to prevent the citizens of Oxford invading our liberties of Holywell.' Some time afterwards they interpreted these liberties very emphatically. Certain felons had six horses, when they were arrested at the King's Arms Inn, and were I presume convicted. These the College claimed as forfeitures to them. The University and City both put in counter claims. But the College satisfied the former as to the nature of their liberties in Holywell, and defied the latter by instantly transferring the six horses to their own stable. Nothing more is heard of the transaction.

Now the register informs us, under date of April, 1606, that an attempt was made by the Oxford citizens to compel all persons to grind their corn at the Castle Mill by suit at law, and that the College determined to defend the action. A trial at Nisi Prius was held during the Oxford circuit, in which the jury found against the city. On this the citizens summoned those persons who ground their corn at our mill (King's Mill)

before the Barons of the Exchequer, sitting in Serjeants' Inn, and the Fellows sent their Sub-warden to London to defend the cause. It was not heard, because 'the Lord Treasurer, our Chancellor (the Earl of Dorset), could not come.' So the case was still pending. Meanwhile the register mentions with satisfaction that the College received £13 6*s.* 6*d.* from the city as costs in their first action at Nisi Prius.

In the month of April, 1608, the case of the mill is on again. The citizens sued we are told in equity, and the Court referred the case to the *jus commune*, the Exchequer Chamber to state a case. Nothing more is said about the matter, and we may conclude that the city was advised to drop the action, or found that their position was hopeless. The College had no doubt relieved more than its own tenants, and the rest of the towns-people took their wheat where they pleased. The city ceased to buy millstones, for their accounts are henceforward silent on this subject. But what I have gleaned shows that the price of first class millstones was still rising.

I may mention here, in connection with the price of stone and other building materials, that when at the beginning of the year 1609 Merton College determined to build a new quadrangle, they made a contract with the mason, John Ackroyd of Halifax, for the building for £570 and his expenses; with the carpenter, Thomas Holt, for £430 and his expenses; rented a quarry at Headington from Mr. Brome at £15 a year, and agreed to hire the royal woods of Stow and Shotover for timber. It is clear then that the contractors agreed to find masons and carpenters for the work, and that the College found stone, lime, and timber. But I have discovered no bills of these particulars in the College records.

LIME. The record of the price of lime is more intelligible and more manageable than that of stone, though it is still puzzling, not only from the different measures used, but by reason of distance from limestone and chalk, or nearness to it.

Lime is generally bought at Cambridge by the load or

chaldron, the quantities being apparently and for the most part identical, though there are some entries which are not a little puzzling. At Oxford it is bought by the quarter and the load, the load being occasionally stated to be four quarters or thirty-two bushels, and the price by the load being generally lower than it is by the quarter. But in 1614 at Oxford the load is $3\frac{1}{2}$ quarters. On one occasion (1658) the Winchester load, which occurs late, is said to be forty-nine bushels, and here the load is cheaper by quantity than the quarter. On Cranfield's estate in 1614 the load is said to be five quarters. It is sometimes sold by the sack of four bushels, and occasionally, as at Chatham and London, by the hundred. From the entry of a load at Chatham in 1600, where we are told that it held thirty bushels, and another in 1620, where both the load and the hundred are priced at the same place, it would seem that the hundred was three-fifths of the load. At Gawthorp it is bought by the horse-load, and on two occasions it is said by Shuttleworth to be used for agricultural purposes.

These variations make the averages doubtful, as it leaves the actual quantity of the load somewhat uncertain. But at Oxford and Eton, where the load is, I am convinced, not only from actual statements, but from the analysis of composite quantities, almost invariably four quarters, sufficient stability is given to the averages, the most numerous entries coming from these places. King's College generally buys by the load, S. John's by the chaldron, and I have assumed that the chaldron and load are identical, as for example in 1643 they certainly are. But sometimes, as in 1650 and again in 1667, the measures are not a little puzzling.

We are told that lime was dearer in winter than in summer, and it is possible that thrifty householders laid in their stocks at a time when the produce was cheapest. And, on the other hand, variations of price in the same locality may be due to the anxiety of the lime-burner to get rid of his stock, when it seemed to lie on his hands, at a low price, or at an unremunerative one. Again, the cost may be complicated by

absence of evidence as to whether the lime was carried or carted, a fact which is sometimes stated, and as I gather from the price generally implied. Small quantities, a few bushels, were probably purchasable on the spot at all times.

Lime very much varies in price, even when the unquestionable quarter is the unit. It is cheapest by far at Cambridge, dearest at Oxford. Of course it is low-priced at Basingstoke and Canterbury, where chalk is very near. Now it seems that the Oxford Colleges did not use the Headington stone for lime, or indeed any of the local oolites, but went to Brill for the article, as the accounts often state, the distance adding by cost of carriage considerably to the price. Thus in 1610 a load at Brill costs 13*s.* 4*d.* on the spot, but the carriage is 6*s.* 2*d.* In the same year All Souls College buys a load of Brill lime (which, it mentions incidentally, contained 33 bushels) for 20*s.* 6*d.* Here, though the statement is not made, the cost of carriage is evidently included. On one occasion the lime is said to be of chalk, and the price, 8*s.* a quarter, is very high. The price at Eton, low at first, increases greatly during the century.

The fusion of all the prices by load or quarter into common averages can only of course give a proof (especially when the examples are numerous, as is not always the case) of the price at which persons, ordinarily circumstanced, could buy lime. Few places indeed in Southern England are very distant from lime, and except the Eastern county examples, most of my evidence comes from Southern England and Oxfordshire. And although any particular year is no safe guide to the general price, as for example 1642 or 1679 and 1680, because in the former case the only evidence is from Cambridge, in the latter only from Winchester, I think the general result may be relied on, on the ground that the years correct each other.

I have not ventured, beyond putting the hypothesis in a note, on treating the London hundreds in two of the later years at three-fifths of the load, and therefore giving the load

for 1698 and 1699 at 20*s.* and 18*s.* 4*d.* respectively, but I have little doubt that my surmise is correct. During the last twenty years there are only a few entries, and these are almost all from the chalk district.

I conclude therefore that, taking the average of the whole period, lime could be generally obtained, by purchasers in a fairly favourable position, at 4*s.* 7*d.* a quarter, and 14*s.* 10*d.* a load, or, adopting the correction of the last decade by the interpretation of the London prices, at 15*s.* 1*d.* the load; that there was a considerable advantage in dealing by the larger measure, and that therefore such a purchase was made, when the consumption was considerable enough to suggest it, or the opportunity was convenient. Lime was not only employed in building, but in repairing ceilings and plastering walls, and in whitewashing. In 1630 lime is 8*s.* the hundred in London, in 1677, 9*s.* 4*d.* and 8*s.*, in 1686, 9*s.* and in 1687, 8*s.*

LATHS. This housebuilding material is still purchased, though more rarely towards the end of the period. Till within five years of the Restoration entries are found almost regularly. After this time they are infrequent, though they are occasionally purchased in considerable quantity.

Laths are commonly sold by the hundred, but in Cambridge and elsewhere by the bunch or bundle. Sometimes the bunch or bundle and the hundred are plainly identical; occasionally, owing to the price, the identity, especially at Cambridge, is suspicious. But all kinds of wood available for lath-rending are dear at Cambridge. Sometimes, again, the bunch or bundle must have been a small quantity, or a very inferior produce, and sold at such a price as could not be included without confusion in the averages. Such for example are a few entries from Worksop in 1595 and 1599. By the assises, laths legally were five feet long, two inches broad, and half an inch thick.

Laths are described as hart and sap, the former used for out-door plastering, the other strong enough for inner walls and ceilings. Both were generally made of oak. I have only

found fir laths once, and that is at the end of the period. They are also sometimes called splints, and these too are of various qualities and prices, the best being four times as dear as the cheapest. Splints are generally found at Cambridge. Laths are also called scindulæ or asserculi by those colleges which still kept their accounts in Latin. Sometimes they are sold by the load of from 31 to 36 bundles. In such large quantities they are generally cheaper than they are by the hundred.

There is not much variation in the price of laths. The entry for 1673, is from a single purchase, and would have been corrected if more had been found. I conclude that, except when an extensive order was given, lath-rending was a bye-industry with the woodman, just as nail-making was with the smith, and that therefore he could afford to sell his produce cheaper than he would have done had his livelihood depended on it. Occasionally, however, men were specially engaged for this industry, as we shall see when we come to deal with labour. When persons purchased underwood of from eighteen to twenty years' growth, they no doubt used some of the most convenient stems for lath-rending, and when timber was cut and lopped, branches which could not be used for building purposes were regularly rent into oak laths and splints.

It is not at all improbable that differences of price may be due to differences of size, either in breadth or length, as well as to differences of quality, and that an examination of old paper buildings, if any of the seventeenth century survive, would reveal such differences. I need scarcely remind my reader that the plaster used for these buildings was of the best quality, and was invariably mixed with cow's-hair, bought from the tanners at a few pence the bushel; and probably, considering that most of the cattle were very coarsely bred, hair was stouter and longer than that would be which is used at present.

TIMBER AND BOARD. Timber is purchased either in the

wood and standing, or cut and squared, sometimes seasoned, the measurement of it being an art which required considerable skill. This fact is illustrated by the 'Carpenter's Rule,' a treatise on timber measuring by Richard More, published in 1602, and dedicated to the Carpenters' Company. This work contains elaborate geometrical and arithmetical rules for the calculation of the cubic contents of timber, particularly that which is 'waynie' or 'canted,' i.e. of irregular shape. More tells us, that such misshapen timber was often sold under the common modes of calculation at a rebate of 1*s.* a load, and that the purchaser for want of experience might often lose to the value of 4*s.* or 5*s.* in the load when he began to work up the material. Considerable acuteness was also needed in calculating the value of standing timber, especially if the tree was thick at the base and rapidly decreased in girth with its height, the problem being, how many feet of available board or plank could be got out of the trunk.

Timber is bought by the load of fifty cubical feet. It seems, though the evidence is not quite conclusive, that the ton and the load were generally identical. In shipping, a ton of timber is taken at forty cubical feet, but tonnage in ships leaves a considerable margin for capacity in loading. As may be expected, there are great variations in the value of the ton or load. In the first place, proximity to forest is of great importance. Timber is much cheaper at Oxford than it is at Cambridge, for not only were the several colleges possessed of considerable woodlands in the neighbourhood, from which they drew supplies of fuel and timber, but the great forests of Shotover and Stow, then in the hands of the Crown, were within easy distance; and it seems that if building was undertaken, even though the corporation might not get the grant, it could generally procure a licence to cut at a cheap rate. Then the kind of timber was of importance. The beams of roofs and floors were generally of oak and chestnut, the latter perhaps less frequently than is supposed; for though England was much more wooded three centuries

ago than it is now, oak was not to be had everywhere. Elm, from its power of resisting damp, was largely employed, where such a kind of timber is needed and frequently figures. Furthermore, straight and solid trunks would be of far higher value than those of irregular shape or of unequal dimensions. And lastly, if timber is bought by the foot instead of the load, it is probably already squared, easily measurable and at once available for use, and therefore will bear a higher price. Now the Cambridge colleges often buy timber by the foot, and even describe it as squared, this involving no exaltation in the price as compared with what is not thus designated. It would seem from the entry under 1602 from Cambridge, that hewn, squared or shaped timber was reckoned to contain forty cubic feet to the load. This reckoning has been accepted in the averages.

In the tables annexed to this chapter, there will be found a series of average prices of timber by the ton, load, and load of forty feet, i. e. of timber lopped and squared. Generally I conclude, as well from common use, as from frequent mention, the timber is oak. Occasionally it is said to be ash. The several kinds are designated by the letters T. L. F., as the average is derived from tons, loads, or feet. Sometimes the load or ton is designated as in the wood, that is either lying recently felled or still standing. But in some of the years timber is purchased at very low prices, as in 1597 by the ton at Oxford, and in 1632 by the same measure at Harting. Similarly there are several entries of timber at very low prices at Basingstoke. But in all these localities timber is abundant, and would therefore be cheap. In the last-named place 'prime timber' in 1635 is only rated at 5*d.* the cubic foot. In the same year at Cambridge 3*s.* a cubic foot is paid for timber.

Navy timber was necessarily of the best quality, and is dearer than that ordinarily purchased. Such material is bought at Chatham in 1642 and 1648, at Portsmouth in 1663 (though here the price is not higher than at Eton), and at

London in 1671. Such timber is called compass and knee timber. It would appear that the former is naturally bent logs, and that the latter is angular logs, including part of the trunk and a principal branch, the irregularities of the shape serving the purpose of shipbuilding. It is said that when wooden ships were alone in use, trees were made to grow artificially in the desired forms. In the averages which have been derived from these entries low prices correct high prices, and the reverse. Nor have I any doubt that, in the latter quarter of the seventeenth century, timber by the load was twice as dear as it was in the last quarter of the sixteenth, and that the rise is generally to be ascribed to the great impetus which the growing foreign trade of the country was giving to shipbuilding. It should be observed also that the rise is visible at Eton and Oxford, as notably as elsewhere. Thus a load is bought at Eton in 1652 at 45*s.*, at Sayes Court near Deptford in 1663 at 40*s.*, at Sheerness in 1670 at 46*s.*, and at Cambridge in 1677 at 66*s.* 8*d.* Evelyn, then residing at Sayes Court, had good grounds for advocating in his *Sylva* the extension of timber plantations, a counsel which Hartlib had given a generation before. The contrast of prices is more marked, if these later dockyard purchases or purchases at places within the influence of dockyard prices are compared with earlier purchases. Thus at Deptford in 1599 loads of oak timber range from 20*s.* to 14*s.* the load, at Maidstone from 24*s.* to 18*s.*, and in 1600 the dockyard buys at 19*s.* Some more entries of navy timber are among the addenda.

BOARD AND PLANK. If I can rely on More's Carpenter's Rule, board was timber sawn in twelve-feet lengths, of a foot broad, and an inch thick. It is extensively employed in building, I suppose for floors, and when laid on joists or rafters, and securely fixed, was of sufficient strength for ordinary domestic purposes. It is generally oak, more rarely elm, and still more rarely, and as a rule only at the latter part of the period, deal. In the Averages which will be found

below I have taken, as far as I could find, oak boards only. But it is possible that beech might have been used at Basingstoke, elm at Oxford, and ash in certain localities; for beech thrives on chalk soils, elm in low-lying ground, and beech was largely used by turners.

Board is found very regularly, or as least sufficiently for all purposes, for the first eighty years, at first for nearly every year, and latterly with some few omissions. For the last forty, entries are scanty, and for one decade are wholly absent. But I have no doubt that the entries represent prices with accuracy, and that the rise in cost is fully and truly exhibited. Of course the principal cause of the rise is the cost of labour. At the beginning of the period, the cost of sawing 100 feet is about 1*s.* 4*d.*, at the end it has risen from 2*s.* 6*d.* to 3*s.*, and every operation needed to put timber into board had been similarly enhanced in price. Up to 1642, after which the rise is marked, the average price is 8*s.* 3*d.* the hundred square feet, during the remainder of the period it is 14*s.* 6½*d.* Similarly for the first sixty years, the average price of a ton or load of timber is 19*s.* 10*d.*; in the next sixty, 33*s.* 2½*d.* Now the rise in the case of board is from unity to 1·762, in that of timber from unity to 1·672; and though there was an equivalent rise in the woodman's wages, there was, as distributed over the sawn timber, a relatively greater cost of labour in the case of sawn timber, a rise which, if the relative value of the unit in timber and the unit in board is taken, will be found to closely correspond, some addition being made to the general rise in all articles when one interprets the increase in the sawyer's wages. In the last half the relation of a load of timber to a hundred of board is that of 2·287 to unity, in the first period 2·404 to one. This also implies that in the price of board increasing cost is due to increased wages.

Entries of plank are rarer than those of board. The latter is an inch in thickness, the former a good deal thicker though very variously, the price not increasing in exact numerical

proportion to the thickness. The hundred of plank is, moreover, 120 feet, as we are expressly told. Sometimes however plank is used for a cheaper article. At Eton in 1615 there are entries of three-inch, two-inch, and inch-and-a-half plank, at 18*s.*, 12*s.* 6*d.*, and 10*s.*; and these prices, or something very near them, are repeated for some few years. They appear to have been purchased for Sir H. Savile's press buildings. In 1671 these three kinds of plank are bought for navy stores by the load, probably of forty cubic feet. At Maidstone in 1599, four kinds of plank are purchased, and priced, three-inch at 16*s.* 6*d.*, two-inch at 11*s.* 6*d.*, 1½-inch at 8*s.* 6*d.*, inch at 5*s.* 8*d.* Towards the end of the period, board increases greatly in price, as far as the few entries which are found inform me.

There are at least twelve entries of clove, clap, or claw board, generally bought for the navy. In these the hundred is of 100 pieces, with one exception, 1610, where it is bought by the 100 superficial feet in London. The earliest entry is at Cambridge in 1593, when the cost is 32*s.* the hundred. In 1597 clap boards are 40*s.* and 60*s.* at two Oxford colleges. In 1600 clove board is at 35*s.* at Maidstone dockyard. But in 1604, Corpus Christi College, Oxford, buys this article at 85*s.* the hundred. In 1611, it costs 30*s.* and 63*s.* 4*d.* at the same Cambridge College. In 1619 it is bought at Chatham at 106*s.* 8*d.*, and is described as large; in 1621 it is 100*s.*; in 1622, 110*s.* and 113*s.* 4*d.*; in 1624, 113*s.* 4*d.* and 84*s.*; in 1625, 100*s.* and 105*s.*; in 1626, 105*s.*; in 1630, 120*s.*; and in 1645, clove board costs £9 the hundred. In 1667, boards twelve feet long are bought by the hundred for Eton College at 140*s.* In the book of rates, clap board is said to be that which is cut, in order to make casks.

Another kind of board is described as quarters, generally oak, and sometimes described as wainscot, and distinguished as single and double quarters. From entries under the years 1611 and 1613, quarters are said to have been from nine to seven feet long. They are also described as single or double.

Single quarters are often bought by the dozen at Oxford, and by the piece at Eton. They are from 3*s.* to 4*s.* the dozen up to 1638. The last entry in 1648 is at 6*s.* They are also bought by the hundred at Cambridge and Eton, and once by the foot at the former place.

Double quarters by the dozen are from 6*s.* to 10*s.* at Eton, the last entry being in 1638. Twice they are bought in the earlier years at Cambridge by the foot, and once in the seventeenth century. The prices are ½*d.*, ¾*d.* and 1*d.* In 1620, there is an entry of ceiling quarters at a penny the foot. Double quarters are bought by the hundred at Cambridge (1623) at 6*s.* 3¾*d.*

Between 1584 and 1649, there are thirty-five entries of elm board. After the last-named year, no more have been found. The average in the first decade is 5*s.* 1½*d.* the hundred, in the second 5*s.* 9½*d.*, in the third 7*s.* 4½*d.*, in the fourth 8*s.* 5*d.*, in the fifth 6*s.* 8*d.*, in the sixth 7*s.* 9*d.*, in the seventh 10*s.* 5*d.* These prices will be found to correspond to the decennial averages of oak board. The average is 7*s.* 4¼*d.* for the seventy years, for oak board 7*s.* 11*d.*, so that oaken board is twenty-five per cent. dearer than elm board. Towards the close of the period, three entries of elm plank by the hundred are found; of these the average is 53*s.* 9*d.* The plank must have been of great thickness.

In 1588, I find ost board at 11*s.* the hundred, in 1589 cress board at 8*s.* 9*d.*, in 1608 nicht board at 8*s.*, in 1652 fittway board at 8*s.* 6*d.* Between 1592 and 1616 there are five entries of eveslaths at prices varying from 4*s.* 2*d.* the hundred to 8*s.* 4*d.* Once, in 1602, they are sold at 2*d.* each. Eve-board by the hundred, and probably the same article, is at 6*s.* 1*d.* the hundred in 1601, at 6*s.* 3*d.* in 1602, and at 5*s.* 3½*d.* in 1639. Featheredge board, corrupted to feveridge in 1613, is at 5*s.* 4*d.* the hundred in the former, 5*s.* 8*d.* in the latter year. In 1593, three hundred board quarters are sold at 2*s.* each.

DEALS. On one occasion, and in a London account, I found

Norway and spruce deals in an earlier period. This was in 1574. This kind of timber becomes more common in the period before me, and at last supersedes, in part at least, other kinds. Deals are bought by the piece and by the hundred, and are called spruce, yellow, and 'Christiany' deals, by which I presume is meant Christiania. Deal timber is occasionally bought, and once I find fir wainscot.

Deals were probably used for the dockyards at a time anterior to such accounts as I have found, though only I believe for internal fittings, the hull and coat of the vessel being it seems always of oak, or in part elm, the latter being used to line the hold. As far as my information goes, deals are first seen at Cambridge in 1594, when they are bought at 1*s.* 8*d.* each, and in 1596, when under the name of free deal boards they are at the high price of 6*s.* 8*d.* In 1599, the Woolwich dockyard buys Denmark deals at 145*s.* the hundred of 120; and in 1600, the same article at 133*s.* 4*d.* In 1602, Corpus Christi College in Oxford buys three loads of Danske timber, each containing 50 pieces, at 82*s.* 5*d.* the load; but this I believe was oak, for ornamental work. In 1607, Cambridge again buys deal boards at 165*s.* the hundred. These entries are significant, for timber is dear at Cambridge, and the sea was very accessible, and would be open to foreign material. In 1619 begins a series of twelve years, in all which entries of this kind of timber are found at Chatham dockyard, deals being found at Eton for the first time in the same year.

Ordinary deals are constantly found at Chatham, and generally spruce. In the first year deals are at an average of 94*s.* the hundred, in the second at 92*s.* 4*d.* In this year spruce first occurs, and we are told that the spars were 28 feet long and two inches thick. They are at £40 10*s.* and £35 6*s.* 8*d.* the hundred. In the next year ordinary deals are at 100*s.*, spruce at 7*s.* each, i. e. £42 the hundred. In the next, ordinary at 100*s.* 5*d.*, spruce at £40 5*s.*; in the next, ordinary at 95*s.*, spruce at £40 6*s.*; in the next, 92*s.* 4*d.* and £42. In 1625, the price varying frequently, ordinary is at an average

of 84*s.* 4*d.*, spruce at £41. In the next year ordinary deals are at 88*s.*, and no spruce is bought again. Ordinary deals for the remaining years are at 106*s.* 8*d.*, 106*s.* 8*d.*, 110*s.* and 113*s.* 9*d.* In 1620 and in 1621 Eton buys deals, stating in the former year that they were 9 feet long, at 11½*d.* and 1*s.* 2*d.* each. They are again bought at Chatham in 1642 and 1648 at £50 the thousand; and in 1645, under the name of spruce deals, at 13*s.* 4*d.* each. In 1647 Eton buys at 152*s.* the hundred. In 1661 they are bought for the first time in Oxford at 180*s.* the hundred, in 1666 in Eton at 110*s.*, in 1680 at 120*s.*, in 1690 at 125*s.* In 1691 Oxford gives 130*s.* In 1696 at the same place it is 115*s.* In 1697 London buys yellow and Christiania deals at £120, and Eton gives the same price in 1699. In 1685 Eton pays 48*s.* for 92 feet of deal timber, about two-thirds the price of oak; and in 1690, 40*s.* a load. In 1699 Oxford gives 2*d.* a foot, or 16*s.* 8*d.* the hundred, for white deal.

Between 1638 and 1702 there are sixteen entries of deals by the piece at Cambridge, Eton, Oxford, and Winchester. The average price is 1*s.* 3¾*d.*, and there is no evidence that the price is rising in the interval. This is significant, as indicating that the foreign trade in timber was regularly on the increase. Considerable purchases of deals and other timber are made between 1697 and 1701 for the work at Westminster Abbey. Thus in 1697 large dram deals are at £6 10*s.* the hundred, oak at 3*d.* a foot; in 1698 yellow dram deals are at £5 15*s.* the hundred, Swede deals at 1*s.* 2*d.* each. In 1699 dram deals are at 1*s.* 3*d.* each, seven foot dram deals at £4 4*s.* the hundred, yellow at £6 5*s.*, yellow balks, 32 feet long, at 3*s.* 6*d.* each, timber 32 inches in diameter at £2 16*s.* the load, and right wainscot at 5*s.* a yard. In 1700 dram deals are at £6 10*s.* the hundred, and deals in 1701 at £3 5*s.* a hundred, oak being at 7½*d.* a foot. I have found the term dram deals in no other account. In 1681 a hundred (120) feet of elm board is 15*s.* 6*d.*, and 93 feet of quarters cost 12*s.* These latter entries are for the city churches where some wainscot is

at 4*s.* 6*d.* the yard (1671), and some (1676, 1678) at 2*s.* 6*d.* the foot. This is the foot linear.

WAINSCOT. This article means the best oak, generally sawn into I conclude inch-thick pieces, and free from flaws and cracks. It was used extensively as panelling for walls and for furniture. Purchases of wainscot are made by the square yard and foot, and by the piece, the dimensions of the latter being uncertain, though generally it seems there was no great difference between the piece and the yard.

Wainscot is found by the yard in thirty-nine years. On some occasions, as in 1617, when it was bought for constructing an organ, the price is exceptionally high, 13*s.* 4*d.* the square yard. Again, in 1692 and 1700, King's College buys at 9*s.* the yard, in the latter year for shutters, though some is purchased in 1700 at 1*s.* 10½*d.* At Winchester 'opus tabulatum' is purchased, very much at the price of wainscot, and is finally identified with it. On one occasion, 1594, wainscot is bought by the square ell. But ell and yard had not by this time been distinguished.

Again, it is bought by the piece. In the first year of the period it is bought at 4*d.* the piece, these being probably small squares, purchased for repairing old panels. In 1692 again, wainscots half an inch thick, are bought at 2*s.* the piece. So again those of 1599 and 1600, at 8*d.* and 1*s.* 7*d.*, must have been only a foot or half a yard square.

The principal purchases are for the navy, and the earliest entry for this purpose states that they were 10 feet long. From this year to 1645 there are ten purchases for navy stores, and these exhibit that remarkable rise in the price of all timber which induced in the end, as I believe, a demand for foreign produce. The earliest price is 7*s.* 7*d.*, but in 1620, 1621, 1623 and 1624, the price oscillates between 6*s.* 8*d.* and 7*s.* In 1625, wainscots are between 8*s.* and 10*s.*; in 1626, 10*s.*; in 1630, 13*s.*; in 1642, 14*s.*; in 1645 and 1688, 20*s.* Thus they are trebled in price within twenty years. In 1598, pieces vary from 1*s.* 6*d.* to 10*s.*; in 1605, from 3*s.* 8*d.* to 6*s.*; in 1611, from

6*s.* 4*d.* to 7*s.* 6*d.* The larger pieces I conclude are about the size of the navy boards, probably ten feet long, an inch thick, and a foot broad, and therefore containing a little over three yards. I have also found wainscot quarters at 3*s.* a dozen.

SUNDRY TIMBER PRODUCTS. There still remain a few articles on which comment may be required. In the early period I find five load of poles, one of which is ash, at an average of a little over 11*s.* the load. In 1636 a hundred poles cost 16*s.* 8*d.* Joists are found twice at 1*s.* each in 1587, and at 6*d.* in 1639, the last being four feet long. A load of rafters in 1596 costs 22*s.* a hundred, in 1600 £13. Elm studs cost 2*d.* a foot in 1585, the College bargaining to have sixty for 9*s.* 4*d.* at a slight reduction in gross. A walnut board costs 3*s.* 8*d.* in 1584, and oak shores 7*s.* a load in 1599. I cannot guess what 'survise' trees at 7*d.* a foot in 1663 may mean. The purchase is made by New College.

The word *asseres* is frequently found in the accounts. At Winchester it is plainly the same as boards. But the word is used it seems for laths in 1588, when a thousand are bought for 15*s.* I have in most other cases taken it to be identical with board of fair quantity. *Assamenta* for a door is a solitary entry at 1¼*d.* the foot. In 1598 panels cost 1*s.* 5*d.* the dozen. They are probably small wainscots.

For four years box-wood is bought for the navy at from 10*s.* to 10*s.* 6*d.* the cwt., probably for the rollers of blocks, and also lignum vitae at from 3½*d.* to 2½*d.* the pound. Once the latter is bought by the cwt. at 18*s.* 8*d.* Trenails are also bought for the navy at from three feet to sixteen inches long, the five lengths being respectively at 4*s.* 6*d.*, 3*s.*, 2*s.* 3*d.*, 2*s.* 1½*d.*, and 2*s.* the hundred.

In 1700 Eton finished its new quadrangle, and put up a solid staircase. The particulars of the fittings are under the year.

There are a few purchases of trees. A walnut tree was sold for 40*s.* in 1602, this timber being used for musket-stocks and furniture. The foundress of Wadham College buys three hundred

oaks, the first hundred at 26*s.* 7*d.*, the others at 28*s.* In 1623 ten trees are bought at Wytham for £9 9*s.* In 1633, one at Basingstoke, already felled and barked, for 80*s.*, a very high price; and two more at 42*s.* 6*d.* In 1674, again, a tree, not further described, is sold for 50*s.*

By an oversight, a few entries of underwood by the acre are included in this register of prices. Some were put, especially from documents which I consulted at a later period, in the register of fuel prices, some among sundries. All that are given have come from Cambridge, and these with one exception from the sales of King's College, and generally in the last forty years of the period. The price, as may be expected, varies greatly. It appears that underwood was sold by auction at stated times to woodmen and charcoal burners. The average of fifteen years is nearly 69*s.* an acre, and the price varies in the same year, and apparently at the same place, from 35*s.* an acre to 165*s.*

Imperfect and broken as the information is which I have been able to collect, it nevertheless indicates clearly that the price of home-grown timber was rapidly rising, that the demand on the woods was more than they could adequately supply, and that recourse must be had to other places for English wants. Not a little of the deficiency is, on the testimony of the time, to be traced to the iron smelting and glass-houses of the seventeenth century. It was to meet the increasing dearness of fuel at iron-works that cast-iron was used, and the process of smelting it was facilitated by the use of pit coal. A further cause of deficient supply was the great progress which ship-building made in the same century and the start which English commerce achieved. The gains of the East India Company were very great, though they had active rivals in the Dutch. The tobacco trade from the English plantations, which had now almost superseded Spanish growths, developed the mercantile marine trading to the American coasts. Now at the end of the century King calculated the woods and coppices at three million acres[1]. There are no

[1] See above, p. 92.

means by which one can test the accuracy of this inference, for we cannot conceive that it came from any survey. But whatever the extent was, it is certain that during the century the demand on these growths was double at least what it had been in Elizabeth's reign, and that the area of supply had not been increased.

BRICKS, TILES, SLATES AND CRESTS. Stone, as may be seen from the prices given in the earlier part of this chapter, was by no means scarce or dear at Cambridge, or indeed Eton. But brick, at least from the middle of the sixteenth century, was universally used at Cambridge and Eton. As soon as the surviving Winchester accounts begin, it is as uniformly employed by that corporation for building purposes, at least for domestic use, for stone was almost always used for ecclesiastical purposes, even when it was by no means easily accessible.

As I mentioned before, vol. iv. p. 729, the brick employed in sixteenth-century buildings was of excellent quality. Brick earth was carefully selected, exposed a long time to the weather, thoroughly mixed, and worked with scrupulous attention. There are many clays, but only some of them yield good brick. The bricks which were employed for old buildings are indestructible by weather, at least those which were employed to face the buildings, for it is plain that various qualities were bought.

In dealing with these materials, I have found it necessary to keep the information derivable from the Eastern Counties, Eton, Winchester, and other brick-using districts, entirely separate from that part of England in which stone was principally used for building and slate for roofing. Slates were occasionally bought at Cambridge, tiles frequently at Oxford. But the prices, if I interpret one of the measures correctly, are so high for bricks and tiles, that no trustworthy average could be procured from them if I included the occasional Oxford entries in the annual prices. There is indeed one article the cost of which is fairly uniform in all localities, i.e. crests or

ridge tiles, though in one locality, Eton, ridge tiles are cheap. The manufacture of bricks and tiles in the neighbourhood of Windsor must have been very extensively practised.

Bricks are frequently bought by the load as well as by the thousand. But the load is plainly five hundred, and indeed is often said to be. On the other hand, the load and the thousand of tiles are identical, as is equally manifest.

Beyond enlargements and occasional rebuildings (for which the corporations generally retained a special reserve as a building fund), these extensive structures were constantly in need of repair, and as constantly their owners had certain persons in their employ, to whom they doled out stores. Of course there was a great deal of constant work, of which the details do not survive, and ultimately the whole business of repairs was intrusted to some master builder, the particulars of whose work vanish. But fortunately I have still been able to collect sufficient evidence for the purpose of illustrating the cost of these materials, and therefrom the charge of buildings which survive and are in use to the present day. The buildings of King's College have been absorbed into the Cambridge University Library, but those of S. John's College, Winchester, and Eton, were constructed out of materials which still serve their purpose.

The Cambridge Colleges do not often specify the origin of their brick. But it is plain that Stow brick is a much better material than Ely brick, for it costs more money. So again Eton, which buys at Slough, Warwill, Upton, and Hedgerley, gives much more for the last-named article than it does for the others. Winchester too specifies Otterbourn and Swanmore brick, both at higher prices than ordinarily, and the latter at so much higher a rate, that this brickfield appears to have been chiefly employed in the manufacture of paving brick. No doubt the higher-priced bricks were employed for facing the buildings, and for dressing the angles when stone was not used for the latter purpose.

The origin of tiles is not given. But in accordance with the

Act of Edward IV regulating the manufacture of this article, and plainly obeyed, as the traditional dimension of tiles points out, more than ordinary care was taken in the selection of tile clay and the manufacture of the product, so as to make it as light as was consistent with strength, and as weather-proof as possible. There is however from year to year, as the locality was near to suitable soil, considerable variety in the price of tiles. Even more care was needed in the manufacture of ridge or crest, gutter and corner tiles, and generally what the makers called hollow ware.

On an average, there is very little difference of price between a thousand bricks, a thousand tiles, and a hundred crest or ridge tiles, and were it not for the fact that the average price of bricks is a little lowered by the inferior quality of a considerable quantity purchased in the last decade but one and the low price at which a small number of crests is sold in the last decade, the prices of each would have been still closer. There is of course always the disturbing cause of local want, or of ready sale, due to over-supply.

There is a remarkable rise in the price of all these articles during the thirty years 1653–1682 inclusive. The exaltation of price is found in all localities, fairly large purchases being made in some of them. I infer that the increase of wages, which we shall see hereafter marked the conclusion of the Civil War and the establishment of the Commonwealth, is the explanation of a considerable part of the rise. During the last fifty years, the average price of brick is 18*s.* 8¼*d.* and of tile 19*s.* 8¾*d.* the thousand, crests being 19*s.* the hundred, the general averages for the whole period being 16*s.* 1*d.*, 16*s.* 5¼*d.*, and 15*s.* 11¾*d.* But it will be convenient to postpone discussion on this subject till the rates of wages are worked out and a careful comparison is made on the whole range of prices.

I have taken the generic name of crests or ridge tiles to express those kinds which were needed in order to keep the roof water-tight, not only on the ridge, but in gutters and

other parts of the structure. These articles are also called hip tiles, corner, roof, eave tiles, gutter, foot, hollow (which is defined in 1639 as ridge and gutter), and imbrices. On one occasion I find lateres fictiles at a high price, 36*s.* a thousand. These were, I conclude, a form of ornamental brick.

One of these kinds of tile, known as paving tile, is very frequently purchased in the earlier part of the period. Thus in 1584, All Souls College paved part of their hall, or perhaps, as the quantity is not large, repaired it with paving tile. These paving tiles are always bought by the dozen or hundred. They are generally about two-thirds the price of crests, though occasionally they are even dearer. On one occasion at Eton they are bought by the load, which is I presume 500. All kinds of these tiles, crest and paving, are cheaper at Oxford than elsewhere.

Brick at Oxford is very dear. It is bought by the dozen, and occasionally by the thousand. Thus when the average price in Cambridge is 12*s.* 11*d.* the thousand, at Oxford they are nearly 28*s.* I have found it convenient for purposes of illustration to take a hypothetical quantity of twelve dozen, and to also expand these into prices by the thousand. They are generally bought in small quantity, and, as appears from notices given of the occasion on which they are needed, were used to line ovens. Thus at Oxford, in 1604, half-a-dozen are bought at 6*d.* by Oriel College, 22½ dozen by Magdalen College at 9*d.* the dozen. In 1606 All Souls College buys at 1*s.* a dozen, and in 1609 Corpus Christi College gives the same price. In 1610 Magdalen College purchases 443 at the enormous rate of nearly 70*s.* a thousand. When they are bought by the hundred or thousand they are generally cheaper, but even in these cases they are at a far higher rate than in any other locality.

Besides what seem, as far as the entries go, to be ordinary bricks, others specifically designated are quoted. Broad brick in 1584 is at 10*s.* 6*d.* the hundred; in 1588, brick, evidently for some special purpose, at 10*s.* 5*d.* In 1591 paving brick is 9*s.* In 1595 paving brick is at 6*s.* 3*d.* and 8*s.* 4*d.* a hundred. In

1596 'oven brick' is at the amazing price of 25*s.* the hundred, the College giving 4*s.* 6*d.* for a dozen and a half. In 1597 pavement brick is bought at 3*s.* 11*d.* the hundred, and in 1598 at 10*s.* 5*d.* In 1599 glazed brick costs 12*s.* 6*d.*, paving 11*s.* In 1610 All Souls College buys a long brick called six-inch at 11*s.* 1*d.*, paving at 9*s.*, six-inch at 6*s.* 8*d.*, and four-inch at 3*s.* 4*d.* a hundred. In 1614 lateres coctiles, which should mean brick, are at 5*s.* the hundred, in 1615 six-inch brick is again at 11*s.* 1*d.*, and in 1616 at 6*s.* 11*d.*, while nine-inch is at 13*s.* 11*d.*, and lateres cocti are at 7*s.* 3½*d.* In 1617 six-inch is 7*s.* a hundred, long brick 16*s.* 8*d.*, paving 6*s.* 8*d.* In 1620 six-inch is again 6*s.* 11*d.*, nine-inch 13*s.* 11*d.* In 1622 brick is at 12*s.* 6*d.* the hundred, in 1623 six-inch at 8*s.* 4*d.*, nine-inch at 16*s.* 8*d.* In 1628 square brick is at 8*s.* 4*d.*, in 1629 lateres are at nearly 19*s.* 2*d.* the hundred. In 1641 brick is at 20*s.* 10*d.* the hundred, and at the same price in 1648. In 1653 brick six inches square is at 12*s.* 6*d.* There is nothing like these prices except at Winchester in 1669, when Swanmore paving brick is bought at 24*s.* the hundred. Lastly, in 1691 paving brick is bought in Oxford at 1*s.* 6*d.* the hundred.

I imagine that these entries are of the paving bricks of all sizes, though many of these high-priced articles are not called paving bricks. I have found paving brick at Eton in 1621 at 6*s.* 8*d.*, at Cambridge in 1634 at 1*s.* 8*d.*, when it is called white; at Eton again in 1651 at 10*s.* a hundred, at Winchester in 1680 at 36*s.* a thousand. These Eton prices are alone similar to the Oxford rates, but even with this assistance the price is not a little startling. I can only conclude that at Oxford, during the greater part of this period, bricks were scarce, dear, and probably brought from very distant localities. It is probable too that the art of making bricks was as yet not known or not practised in this city, and there was no regular demand for the article.

Tiles are generally bought at Oxford by the load, and later on by the thousand. But after the first fifty years entries become exceedingly rare, and at last almost disappear. Now

at first I was under the impression, owing to the interpretation of an entry under the year 1596, that there were 800 to a load, but such a price is wholly inconsistent with that of purchases by the thousand at the time and place. The quantity intended by the load rather suggests about 400 or 500. Now at Eton and elsewhere the load of tiles is always 1000, and this leads me to conclude that the Oxford tile of the sixteenth and seventeenth centuries must have been thicker and heavier than that manufactured elsewhere, one, in short, whose solidity and stoutness made it possible to use it with the heavy oolite slate which has been for a long period the common roofing material at Oxford. The following is the average price of Oxford tiles by the load during the decades in which they appear:—

1583–1592 ... 7*s.* 6*d.*	1623–1632 ... ...
1593–1602 ... 7*s.* 8*d.*	1633–1642 ... 12*s.*
1603–1612 ... 7*s.* 6*d.*	1643–1652 ... 26*s.*
1613–1622 ... 10*s.* 10*d.*	

The following give prices by the thousand:—

1603–1612 ... 20*s.*	1633–1642 ... 20*s.*
1613–1622 ... 19*s.* 2*d.*	1673–1682 ... 50*s.*
1623–1632 ... 19*s.* 10*d.*	

These averages, scanty as they are, seem to confirm my inference as to the quantity contained in the load.

SLATES. Slates are bought at Oxford and occasionally elsewhere. At Oxford they are the fissile oolite, and are named in one year (1660) as Stonesfield and Shipton. They are also procured extensively from Guiting, in Gloucestershire. They are bought by the load and the thousand, one entry stating that 400 went to a load. At this rate, however, the rate by the load is lower than that by the thousand, and I am constrained to infer, either that the load was a variable quantity, or that, as a rule, slates purchased by tale are of a larger size than those which were bought by the load. It is to be noted that the old distinctions made in the earlier times (vol. iv. p. 442) disappear. At that time, common large were at 200 to a load. But in comparing the two kind of prices, 400

seems nearest to the average, and to suggest that by this time the slate bought by the Oxford Colleges was of a uniform size, most likely the 'small' of earlier years. For example, two Colleges, in 1586, buy slate at a mean of 7*s*. 2½*d*. The city purchases for its own buildings at 20*s*. the thousand, and the proportion given above seems to be indicated. In 1591 Corpus Christi College buys at 5*s*. the load, All Souls at 6*s*., but the former College also buys at 20*s*. the thousand. In 1596 All Souls College buys at 8*s*. the load, and the entry allows one to infer that 400 went to the load, for the quantity bought is seven loads and one hundred, at 8*s*. the load, and the whole cost is 58*s*. Altogether the evidence seems to show that to reduce loads to thousands, the former should be multiplied two and a-half times.

Slates by load and thousand are common in the earlier years, but become scantier as time goes on, the reason being that which has been so often referred to, the abandonment of private stores for contracts, a practice which commenced at Oxford long before it was adopted at Cambridge.

Slates are sometimes purchased at Cambridge by S. John's College. They were procured, if I can draw an inference from a single entry in 1681, at Colley Weston in Northamptonshire; and, probably owing to the cost of carriage, in this case 8*s*. a load, are a good deal dearer than they were at Oxford. I have found them also at Worksop and at Winchester, if, as seems obvious, tegulae scissae are to be taken as slates, a name used in 1672. Cambridge purchases are generally made by the thousand, and I should infer from the price that the entry of loads in 1681 is of thousands also.

From the facts then which I have collected I conclude that the average price of a thousand slates at Oxford and elsewhere was during the whole period 21*s*. 5½*d*., and that on the whole it shows no material change during the whole time. It is probable that slate-making in the quarries was a bye industry, for certainly the quarries were worked, in Oxfordshire at least, for building as well as for roofing purposes, and that the

quarry men, when the demand for stone was slack, employed their time in splitting, dressing, and boring such stone as was available for slates.

What ridge-tiles were to the clay produce, eaveslates were to their congeners. I find them at 10*s.* the hundred in 1594, at New College and All Souls; at 11*s.* a load in 1596, at 16*s.* a load in 1613, at 2*s.* 1*d.* the quarter in 1614, at 8*s.* the hundred in 1622, at 2*s.* the score in 1628, and 6*d.* each in 1640. These were no doubt hewed out of the stone by the workmen. But generally, even in those districts where slate was used, the ridge was tile.

Tile and slate pins, certainly a bye-product with woodmen, were bought by the bushel at from 1*s.* 4*d.* to 1*s.* 6*d.*, very numerously, but with so little change of price that I have not thought it worth while to register them. The same is the case with mortar hair, easily procured from the tanners, who carried on their craft in every large town.

There are a few special entries. Such are the broad paving tile of 1603, the white paving tile of 1610, the painted tile of 1621, the hewed tile of 1633, the pavement squares of 1657, and the four-edged brick of 1660. The lowest price of brick in the later period, one which I was obliged to omit from my averages, is an account sent to Houghton by a correspondent stating the particulars of the cost incurred by the builder of a barn at Stratford-on-Avon in 1693.

The subjoined tables give the averages, annual and decennial, of lime by the quarter and the load, of laths by the hundred or bunch, of timber by the ton or load, of board or plank by the hundred superficial feet, of wainscot by the yard, of brick in the brick-building districts by the thousand, of tiles by the thousand, of ridge-tiles or crests by the hundred, of slates by the thousand, and of Oxford brick by the thousand.

Building Materials.—Averages.

	Lime, quarter.	Lime, load.	Laths, *c.* or bunch.	Timber, ton or load.	Board, *c.*	Plank, *c.*
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1583–4	3 0	8 8¾	1 0¼	.....	6 6	10 0
1584–5	4 0¼	8 10½	1 2	14 0T[1]	7 0	9 0
1585–6	3 9¼	9 7½	1 3½	22 6F[1]	7 0¾	.....
1586–7	3 1¼	9 1½	1 0¾	21 8F	7 6	12 0
1587–8	3 6	8 8	1 0¾	.....	5 7½	.....
1588–9	3 4	8 6	1 2¼	13 4L[1]	7 3½	13 4
1589–90	4 0	6 0	1 2¾	13 4L	7 5	.....
1590–1	4 1	9 0	0 11¾	13 4L	5 10½	8 0
1591–2	4 3	9 6	0 11¾	14 4L	7 4	.....
1592–3	3 1	10 0	1 1	20 0F	7 5	15 0
1593–4	4 4	9 10½	1 1	17 9½F	7 11¼	.....
1594–5	3 8	10 1	1 2¼	26 8F	7 2¾	21 0
1595–6	4 4	10 9	1 1	16 0L	6 2¼	15 9
1596–7	4 6	11 1	1 1	20 0F	5 5¼	19 1½
1597–8	5 8	11 6	1 1	7 6T	6 4¾	10 0
1598–9	5 1	11 0	1 1	17 0L	6 4	.....
1599–1600	4 1	10 8	1 2	16 7½L	8 4	16 6
1600–1	3 5	11 3	1 0¼	19 0L	8 0½	.....
1601–2	3 10	11 1	1 0½	16 0T	7 3	8 8
1602–3	4 0	11 5	1 0½	25 0F	7 9	21 10½
1603–4	4 0	11 2½	1 0	.....	9 5	.....
1604–5	3 9½	11 7	0 11	.....	7 8¼	.....
1605–6	5 4	11 8¼	1 1¾	20 0T	7 7¼	21 0
1606–7	5 4	12 0	1 0½	20 10T	7 8	.....
1607–8	5 4	11 7¼	1 0½	.....	9 8	12 0
1608–9	4 0	12 3¼	1 3	18 5T	8 7	.....
1609–10	5 8	12 7	1 5	20 0L	9 8¼	17 3
1610–1	5 7	12 11	1 5½	20 0L	8 8	19 0
1611–2	6 4	13 9	1 3	24 7L	9 8¼	.....
1612–3	4 4	12 9	1 1¼	24 4F	8 7½	12 0
1613–4	6 8	14 2	1 5¼	26 8F	10 0	.....
1614–5	5 1	15 2¼	1 3½	16 8F	10 1	12 0

[1] T. ton; L. load; F. feet at 50 to load.

BUILDING MATERIALS.—AVERAGES

Wainscot, yard.	Bricks, East and London district, *m.*	Plain tile, *m.*	Crests or ridge, *c.*	Paving tile, *c.*	Oxford slates, *m.*	Oxford bricks, *m.*	
s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	
.....	10 11¾	12 3½	12 6	.....	26 8	28 0	1583-4
.....	14 10	12 6	11 6	8 8¼	18 4	28 0	1584-5
.....	12 6¼	12 6	10 5	8 4	13 0¾	29 9	1585-6
2 0	12 7	13 3	12 6	8 4	20 0	28 0	1586-7
.....	12 2	12 6	13 4	10 0	16 8	.....	1587-8
1 10	13 4	12 4	.....	9 0	17 6	28 0	1588-9
1 11¼	13 10½	.....	15 0	12 6	.....	.....	1589-90
2 2	10 0	11 10	14 11	8 0	18 1½	28 0	1590-1
2 4	13 0	12 6	.....	7 6	20 0	24 6	1591-2
2 6	12 6	11 9	9 8	.....	12 6	.....	1592-3
2 0	13 0¾	11 2	8 4	6 8	18 1½	28 0	1593-4
2 3½	15 2	13 9	13 9¼	5 0	12 6	31 6	1594-5
.....	14 0	13 0	16 8	7 3½	26 8c[1]	.....	1595-6
2 4	10 6	13 0	16 8	5 0	20 0	35 0	1596-7
3 9	10 9	11 0	8 4	5 0	15 3	35 0	1597-8
5 6	12 7	14 6	12 6	5 0	19 4½	35 0	1598-9
2 4	13 6½	14 9	12 6	5 6	20 0	29 9	1599-1600
2 4¾	15 0	13 6	15 3	5 6	.....	.....	1600-1
3 2	12 6¼	11 0	19 5	7 10	25 0	35 0	1601-2
3 4	14 7	14 11	16 0	.....	21 10½	.....	1602-3
3 4	14 6½	13 7½	16 3	5 6	20 0	38 6	1603-4
2 8½	13 7½	12 8	10 6	.....	.....	52 6	1604-5
5 0	12 4	16 3	.....	5 6	.....	.....	1605-6
.....	15 10	13 10	10 5	5 6	19 2	.....	1606-7
.....	17 2	12 5	8 4	5 5	21 10½	28 0	1607-8
2 6	14 8	14 3	13 9	.....	18 9	42 0	1608-9
.....	14 6	14 0	16 8	16 8	26 6c	.....	1609-10
2 6	13 0	14 8	16 8	9 0	.....	42 0	1610-1
6 11	16 8	.....	16 8	8 4	.....	.....	1611-2
5 1¾	13 8	13 5½	16 8	.....	20 0	.....	1612-3
.....	17 2	13 0	.....	.....	20 0[2]	.....	1613-4
.....	13 8	14 4¾	12 6	6 8	19 2[3]	30 0	1614-5

[1] Those marked (c) are from Cambridge. [2] S. John's, Cambridge, 30*s.*
[3] S. John's, 17*s.*

	Lime, quarter.	Lime, load.	Laths, *c.* or bunch.	Timber, ton or load.	Board, *c.*	Plank, *c.*
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1615-6	5 6	13 0¼	1 7	20 4 L	7 8	25 0
1616-7	4 6	13 6	1 3¼	20 0 L	10 11½	17 8
1617-8	6 6	13 8	1 1	22 0 L	6 9	12 0
1618-9	4 6[1]	13 5½	1 0½	18 11 F	.....	.....
1619-20	5 7	12 6¾	1 2½	20 0 L	7 0	13 6
1620-1	3 4	11 0	1 0¼	15 7 F	9 4	15 0
1621-2	4 1	13 7¾	1 0¾	18 9 L	9 8¾	.....
1622-3	4 8	13 4¾	1 2¼	21 4 L	8 4[4]	.....
1623-4	4 0½	13 2	1 1	.....	8 10	.....
1624-5	8 0	11 11¼	1 2¾	22 0 L	7 1½	.....
1625-6	4 0	12 0	1 0½	23 0 L	.....	15 0
1626-7	6 0	13 2	1 1	16 8 F	10 0	11 0
1627-8	7 4	14 4¾	1 0	.....	6 8	16 4
1628-9	4 0	11 3	1 4¾	.....	7 5½	17 3½
1629-30	5 8	13 6	1 2¼	.....	.....	17 0
1630-1	6 8	15 6	1 3	.....	.....	16 8
1631-2	5 0[1]	14 10	1 2	.....	8 2	16 8
1632-3	5 3	14 8	0 11	7 6 T	7 4	12 10
1633-4	4 8	14 10	1 5	.....	.....	.....
1634-5	4 0	15 3	1 7	15 9 T[3]	7 0	.....
1635-6	3 6	15 4	1 3¼	22 0 L	11 6	12 2
1636-7	5 0	15 0	1 3	18 9 F	11 1¼	16 8
1637-8	5 0[1]	15 4	1 3½	23 4 F	.....	.....
1638-9	5 0[1]	13 6	1 5	28 0 L	11 0	16 8
1639-40	4 10	15 4	1 7½	25 0 L	9 6½	.....
1640-1	4 0	16 0	1 3	.....	9 4½	25 0
1641-2	5 0[1]	15 0	.....	.....	.....	.....
1642-3	.....	8 0[2]	1 5	50 0 L	.....	.....
1643-4	3 10[2]	14 0[2]	1 6	.....	12 6	.....
1644-5	4 8¾	13 4	1 0½	25 0 T	.....	16 8
1645-6	4 0	17 1½	1 1	22 0 T	11 3	12 6
1646-7	4 6	17 6	1 2¾	20 0 F	.....	.....
1647-8	3 3	16 3	1 5¼	22 0 L	11 0	.....
1648-9	4 10¼	19 4¾	1 4	40 0 L	12 8	.....
1649-50	4 8	16 5¾	.....	22 0 L	.....	.....
1650-1	3 10	15 11	1 3¾	17 0 F	11 6½	.....

[1] Calculated from Oxford load. [2] Cambridge only. [3] Ash. [4] Elm.

Wainscot, yard.	Bricks, East and London district, *m.*	Plain tile, *m.*	Crests or ridge, *c.*	Paving tile, *c.*	Oxford slates, *m.*	Oxford bricks, *m.*	
s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	
.....	14 8	17 6	16 8	6 8	19 4	.....	1615–6
.....	13 9½	13 8½	16 8	6 8	20 0	70 0	1616–7
13 4	13 11	14 9	12 6	6 8	.....	33 4	1617–8
.....	14 10	13 4	12 6	6 8	.....	84 0	1618–9
4 6	12 8¾	13 9¾	16 8	5 6	20 0	27 3	1619–20
4 4¾	13 11	13 5	12 6	6 10	18 4	35 0	1620–1
4 8	13 6¼	13 11¼	14 7	8 4	18 4	.....	1621–2
.....	13 9½	13 10	12 6	6 8	15 8	17 1	1622–3
4 0	13 0	12 9	13 1	.....	.....	30 0	1623–4
.....	13 11	13 1	15 5½	6 8	18 4	26 8	1624–5
.....	13 5	13 4	8 4	.....	17 6[1]	.....	1625–6
.....	13 8½	13 3	16 8	.....	18 4	20 0	1626–7
.....	14 9	13 4	12 10	6 8	20 0	.....	1627–8
.....	15 5½	14 4	14 2½	8 4	20 0	42 0	1628–9
.....	14 4	15 1¾	16 8	7 9	30 0	33 4	1629–30
.....	15 7½	16 11½	13 0	.....	25 0 C	.....	1630–1
.....	15 6	15 5	12 6	7 0	30 0	.....	1631–2
.....	13 2	13 1	15 6	6 8	30 0	.....	1632–3
2 8	16 2½	13 6¼	12 6	.....	.....	25 0	1633–4
.....	14 9	14 0	11 5½	.....	30 0	.....	1634–5
.....	15 5	14 1¾	13 6½	.....	20 0	.....	1635–6
.....	14 9½	13 4	12 4½	12 6	.....	25 0	1636–7
.....	14 6	14 1½	11 3	7 10	30 0	.....	1637–8
.....	14 6	.....	11 6	8 4	.....	.....	1638–9
.....	15 3	17 5	13 6½	7 10	20 0[2]	.....	1639–40
4 0	15 0	13 10¾	13 9	7 0	18 4	23 4	1640–1
.....	15 3	12 0	7 6	12 6	.....	.....	1641–2
.....	15 6	12 0	.....	.....	.....	.....	1642–3
.....	15 10	.....	.....	.....	.....	.....	1643–4
.....	16 2	13 0	12 6	8 4	.....	26 8	1644–5
2 8	14 8	14 0	11 6	9 5	.....	25 0	1645–6
.....	17 2½	15 11	11 3½	8 0	.....	.....	1646–7
2 7	16 1	15 10	17 5	8 0	.....	.....	1647–8
5 6	18 6½	15 8½	16 8	8 0	.....	25 0	1648–9
3 0	16 3½	15 5	20 10	10 0	20 10[3]	.....	1649–50
.....	13 11	14 10	25 0	10 0	23 4	.....	1650–1

[1] S. John's, 18*s.* [2] S. John's, 30*s.* [3] S. John's, 22*s.*

	Lime, quarter.	Lime, load.	Laths, *c.* or bunch.	Timber, ton or load.	Board, *c.*	Plank, *c.*
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1651-2	4 8[1]	16 3	1 7	23 8 L	13 0	30 0
1652-3	4 1¼	11 6[2]	1 2	36 6 L	13 1	.....
1653-4	5 2¾	15 3	0 9	27 0 L	14 0	50 0
1654-5	4 5¼	.....	1 4	.....	.....	.....
1655-6	5 3¼	.....	1 1¾	.....	13 4	.....
1556-7	5 10½	11 0[2]	.....	.....	13 3¼	.....
1657-8	5 8	.....	.....	26 8 L[4]	13 4	.....
1658-9	5 9	21 10½	1 8	30 0 L	13 4	.....
1659-60	5 6	21 3	.....	22 6 L	12 6	.....
1660-1	6 0	25 4	0 10	30 0 L	.....	.....
1661-2	5 4	18 2	.....	25 0 L	16 8	.....
1662-3	5 2	20 6¾	1 3	25 0 L	.....	.....
1663-4	3 8[1]	16 10½	.....	25 0 L	14 8	.....
1664-5	3 10[1]	20 2¾	1 3¼	28 0 L	.....	.....
1665-6	3 10[1]	20 4¾	1 4	25 0 L	.....	.....
1666-7	3 10	20 0	1 1¾	42 0 L	.....	.....
1667-8	5 2	19 6	1 8	32 0 L[4]	.....	.. ..
1668-9	3 6[1]	17 0	.....	30 0 L	14 0	.....
1669-70	3 8[1]	16 9	.....	.....	.....	.....
1670-1	3 8[1]	24 0[3]	1 7	30 0 L[4]	.....	.....
1671-2	3 8[1]	24 0[3]	.....	45 11 L	.....	.....
1672-3	3 8[1]	21 8	1 6	46 0 L	.....	.....
1673-4	3 8[1]	16 9	2 3	32 0 L[4]	.....	.....
1674-5	4 0[1]	22 4	.....	60 0 L	.....	.....
1675-6	4 0[1]	24 0[2]	.....	.....	20 0	.....
1676-7	.....	23 6	.....	30 0 L[4]	.....	.....
1677-8	.....	22 0	.....	50 8 L	.....	.....
1678-9	3 10[1]	24 0[2]	.....	.....	.....	.....
1679-80	3 8[1]	.....	.....	.....	14 9	.....
1680-1	4 0[1]	.....	.....	30 0 T	.....	.....
1681-2	5 2½	18 0[2]	.....	30 0 T	15 6	.....
1682-3	.....	.....	.....	.....	.....	.....
1683-4	.....	.....	.....	.....	.....	.....
1684-5	.....	.....	.....	.....	.....	.....
1685-6	.....	.....	.....	4 2 F	.....	.....
1686-7	4 1[1]	.....	1 6	34 0 L	.....	.....

[1] Winchester only. [2] Cambridge only. [3] Eton only. [4] In wood.

Wainscot, yard.	Bricks, East and London district, *m.*	Plain tile, *m.*	Crests or ridge, *c.*	Paving tile, *c.*	Oxford slates, *m.*	Oxford bricks, *m.*	
s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	
.....	15 0	16 9	.....	10 0	.....	.....	1651-2
.....	16 1	15 3	14 8	10 0	19 6[1]	.....	1652-3
.....	17 3	14 4½	.....	11 3	.....	.....	1653-4
3 10	15 4	20 0	.....	10 0	24 0 C	33 4	1654-5
.....	16 8	16 11½	27 2	.....	.....	.....	1655-6
.....	19 0	22 0	25 0	.....	.....	40 0	1656-7
3 0	21 10	21 8	.....	10 0	13 9	30 0	1657-8
.....	30 0	21 6	20 10	.....	16 8	.....	1658-9
.....	18 2	16 4	.....	8 0	16 8	.....	1659-60
.....	17 9	19 6	.....	15 0	18 1½	.....	1660-1
.....	18 10	19 9	25 0	10 0	.....	30 0	1661-2
3 0	19 6	20 4	16 8	.....	.....	.....	1662-3
.....	17 6	21 6	29 2	.....	.....	.....	1663-4
.....	16 9¼	20 0	25 0	.....	22 6	30 0	1664-5
.....	17 0	.....	.....	.....	21 8	.....	1665-6
.....	17 7	20 4	25 0	.....	.....	.....	1666-7
.....	20 0	15 4	16 8	7 6	.....	.....	1667-8
.....	19 0	20 0	18 4	.....	30 0 C	.....	1668-9
.....	18 2	.....	.....	24 0	21 8	.....	1669-70
.....	21 0	18 0	.....	.....	.....	.....	1670-1
.....	.....	19 0	.....	.....	.....	.....	1671-2
.....	20 0	17 9	16 8	.....	13 4[2]	.....	1672-3
.....	19 6	.....	.....	.....	.....	.....	1673-4
.....	19 0	20 0	.....	10 0	20 0	.....	1674-5
.....	20 0	21 0	20 10	.....	.....	.....	1675-6
.....	20 0	.....	.....	.....	.....	.....	1676-7
.....	20 0	21 4	20 10	.....	.....	.....	1677-8
.....	18 4	20 0	22 3	.....	.....	.....	1678-9
.....	20 0	.....	.....	.....	.....	.....	1679-80
.....	20 0	.....	.....	.....	.....	.....	1680-1
.....	20 0	20 0	.....	.....	28 0	.....	1681-2
.....	18 6	20 0	.....	.....	.....	.....	1682-3
.....	17 0	16 0	.....	.....	.....	.....	1683-4
.....	16 0	.....	.....	.....	.....	.....	1684-5
.....	16 8	.....	.....	.....	.....	.....	1685-6
.....	16 10¾	20 0	.....	.....	.....	.....	1686-7

[1] Winchester, 'tegulae scissae.' [2] Winchester.

	Lime, quarter.	Lime, load.	Laths, *c.* or bunch.	Timber, ton or load.	Board, *c.*	Plank, *c.*
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1687–8	.....	.....	.....	60 0 F	.....	.....
1688–9	.....	17 0[2]	.....	.....	.....	40 0
1689–90	.....	17 0[2]	2 1¼	.....	.....	100 0
1690–1	.....	17 0[2]	.....	30 0 T	.....	.....
1691–2	4 0	20 0	1 5½	32 0 F	.....	21 8
1692–3	4 0	.....	1 8	25 0 L	.....	.....
1693–4	.....	9 6[3]	.....	22 8 T	13 4	.....
1694–5	.....	10 0[4]	.....	.....	.....	.....
1695–6	.....	.....	.....	.....	.....	40 0
1696–7	.....	.....	.....	.....	.....	.....
1697–8	.....	.....	1 7	32 0 L[7]	.....	.....
1698–9	.....	12 0[5]	1 6	.....	.....	.....
1699–1700	.....	11 0[6]	1 6	40 0 F	18 4	.....
1700–1	6 8	13 0[6]	.....	.....	20 10	.....
1701–2	4 0[1]	.....	.....	30 0 L[7]	16 8	.....
1702–3	.....	.....	.....	33 0 T	.....	.....

Decennial Averages.

	Lime, quarter,	Lime, load.	Laths, *c.* or bunch.	Timber, ton or load.	Board, *c.*	Plank, *c.*
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1583–1592	3 7½	8 9½	1 1¼	16 6¾	6 10¾	11 2¼
1593–1602	4 4¾	10 10½	1 2	18 2	7 1	16 1½
1603–1612	4 11½	12 2¾	1 2	21 2	8 8¾	16 3
1613–1622	5 0½	13 4¼	1 2½	20 0¼	8 10½	15 10¼
1623–1632	5 7	13 4	1 1½	17 3½	7 11	15 4
1633–1642	4 6¾	14 5½	1 4½	25 10	9 11	17 7½
1643–1652	4 3	15 9¼	1 3¼	25 4¼	12 1¾	19 9
1653–1662	5 5	19 0¾	1 2	26 7	13 9¼	50 0
1663–1672	3 10¼	20 0½	1 5	37 10¼	14 4	.....
1673–1682	4 0¾	21 6	2 3	38 9	15 1½	.....
1683–1692	4 0¼	17 9	1 8¼	39 2	.....	53 10½
1693–1702	5 4	10 10[8]	1 6¼	31 6½	17 3½	40 0
Gen. Average	4 7	14 10	1 4½	26 6¼	11 1¼	25 7¼

[1] Winchester only. [2] Cambridge only. [3] Harting only.
[4] Cuckfield only. [5] London *c.* [6] Foxcomb load. [7] In wood.
[8] Taking the London hundred at three-fifths of the load, the average is 14*s.* 2*d.*

Wainscot, yard.	Bricks, East and London district.	Plain tile, *m.*	Crests or ridge, *c.*	Paving tile, *c.*	Oxford slates, *m.*	Oxford bricks, *m.*	
s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	
.....	16 8	.....	.....	.....	.....	.....	1687–8
.....	15 1	.....	.....	.....	.....	.....	1688–9
.....	14 8½	.....	.....	.....	.....	.....	1689–90
.....	16 8½	.....	.....	.....	.....	.....	1690–1
.....	16 1	20 0	16 8	12 6	.....	.....	1691–2
9 0	20 0	.....	.....	.....	.....	.....	1692–3
.....	17 3	28 0	.....	.....	.....	.....	1693–4
.....	20 0	26 0	.....	16 8	26 8c	.....	1694–5
.....	.....	.....	.....	.....	.....	.....	1695–6
.....	.....	.....	.....	.....	.....	.....	1696–7
3 11¼	.....	17 0	12 0	.....	26 8c	.....	1697–8
.....	20 0	30 0	.....	18 8	.....	.....	1698–9
.....	.....	20 0	.....	.....	.....	.....	1699–1700
9 0	20 0	18 0	10 0	.....	.....	35 0	1700–1
.....	.....	20 0	.....	.....	.....	.....	1701–2
.....	20 0	20 0	15 0	.....	.....	.....	1702–3

Decennial Averages.

Wainscot, yard.	Bricks, East and London district.	Plain tile, *m.*	Crests or ridge, *c.*	Paving tile, *c.*	Oxford slates, *m.*	Oxford bricks, *m.*	
s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	
2 1½	12 6¾	12 4½	12 4¾	9 0½	18 1	27 9	1583–1592
3 0¼	13 2	13 0¾	14 0¼	5 10½	19 10½	33 5½	1593–1602
4 0¼	14 7¼	13 11	14 0	7 8½	20 10¾	38 7½	1603–1612
6 8¾	14 2½	14 2	14 1½	6 9	18 8¼	42 4½	1613–1622
4 0	14 2¼	14 0¾	13 10	7 2½	22 4¾	30 5	1623–1632
3 4	15 8¼	13 10	11 11¼	9 4	24 8½	24 1	1633–1642
3 5¼	15 1¼	15 2¼	16 4¾	9 1	21 3	25 3	1643–1652
3 3¼	19 5¼	19 3	22 11	10 8½	17 8	33 4	1653–1662
.....	18 6¾	19 0	21 9¾	15 9	21 10	30 0	1663–1672
.....	19 6½	20 4¾	21 3½	10 0	24 0	.....	1673–1682
9 0	16 7	18 8	16 8	12 6	.....	.....	1683–1692
6 5½	19 3¾	22 4½	12 4	17 8	26 8	35 0	1693–1702
4 6½	16 1	16 6¼	15 11¾	12 1½	21 5½	32 0¼	Gen. Average

CHAPTER XX.

ON THE PRICE OF TEXTILE FABRICS. LINEN.

THE information under this head is very copious and varied, especially for the first sixty or eighty years. The consumption of the corporations is large, and the range of qualities is wide, for the gradation of ranks is markedly designated in the very different character of the linen supplied to scholars, ordinary fellows, officials of the corporation, and the head of the establishment, for in those days the table linen of the warden, provost, or master was supplied out of the funds of the corporation. These distinctions are particularly marked at King's College, Cambridge, where three or four kinds of linen are annually purchased for the several tables in the hall, and at Eton, where the foundation boys and even the 'gentlemen,' that is the Oppidan students, are supplied with a cheap, narrow and coarse table-cloth. But besides the table linen, there are always napkins of two quantities at least, towelling of various kinds, ordinary sheeting and shirting for students, servants and the head of the establishment, and occasionally canvas for covering the horses in the stable, or laying under the saddle. Canvas or linen is also needed for cleansing the dishes, for rubbing the plate, and for other household uses. Sacking is found, and even in the earlier period canvas for mill-sails, so common in the earlier years of this work.

Besides these articles of what may be called middle class consumption, there are entries of servants' clothing in the lowest rank, and of that purchased by rich persons in the highest.

Thus I have found purchases of linen on behalf of the eldest son of James (whose early death was so great a grief to the English, as he seemed so full of promise and vigour), made in the first quarter of the century, and of others by the Duchess of Richmond, just before the beginning of the last quarter. There are also the purchases of Shuttleworth and Master, the former of whom seems to have possessed shrewd notions of economy, though he incurred occasional expenditure, while the latter gradually developed from a Puritan into a beau, for his purchases of linen, fine cloaths, and wigs (we shall see the two last hereafter) and his new books mark the departure from the traditions of his bringing up.

Again, we shall find some evidence, as the names are significant, of the origin of many among these fabrics. And here it is noteworthy, that foreign produce, in so far as this test can be applied, is all but invariably noted at Cambridge, London (from which a few entries come), and Eton. As far as dealing went, Eton was London, for it is clear that in these, as in other articles, the fellows of the School, either personally or by their agents, bought in the London markets. The Cambridge Colleges, beyond doubt, laid in their stock at the great Stourbridge fair, and buying from the merchants, English and foreign, who congregated there, entered, I am glad to find, the particulars of the traders' invoices into their bursar's audit account. The ancient fellows of King's College, Cambridge, read few books, and bought none to read during the whole period before me, for only one year of their annual accounts is missing. They once did buy two books, and those they gave away to Charles the Second and the Duke of York. But they did another service, I fain hope, to letters and history, of no little moment. They kept exact and elaborate accounts, and from this point of view seem to have never been weary of careful well-doing. Even the intrusive fellows, who stole their savings, were not without method.

These accounts of the pantry and still-rooms enable one to reconstruct in some degree the life of a Cambridge student and

a College beneficiary; of those who were still under the discipline of study and subordination, and of those who had entered on the full enjoyment of the founder's munificence. In summer the inmates rose with the sun, in winter before the dawn. Artificial warmth could be procured at no exorbitant cost, artificial light was dear and feeble. Fat was still nearly double the price of meat, and the price of candles shows a marked rise during the seventeenth century. The life of the inmates in College was perforce in common, and I have no doubt that the fellows of King's College, Cambridge, quarrelled as bitterly in the seventeenth, as those of Merton did in the fourteenth century. I wish I could have found facts for the later, as I had the good fortune to discover them for the earlier period. *Conticuere omnes.*

It appears that the fellows washed in the hall. Even the fellows of Eton, shortly after Savile's time, were in the fashion, for under the year 1615 I find that a round towel was put up in the hall, 'at the end of the table, where the fellows wash.' There are numerous entries of such towels, which indicate that general and rapid ablutions were practised, two centuries ago, in such qualified privacy. The more humble or the less favoured portion of the foundation were not encouraged to be cleanly. As I was collecting my information from Winchester, I was shown in the first quadrangle of Wykeham's College a place where, in times not very ancient, the boys were led to wash at a long trough (no severe pressure being probably put on the reluctant), over which there once stood a penthouse. The place, I am told, is still called Moab, for the boys hear the Psalms monthly. Their superiors were probably not much more cleanly. It is said of James the First that he never washed, but that he occasionally wiped his hands on a dry towel. This part of the Divine right of kings was probably imitated by his loyal subjects and immediate neighbours.

The two meals of the day, dinner and supper, were taken in common. The tables were put out in the hall, the inmates were ranged according to their degree, and were waited on by

the lowest class of students, the servitors at Oxford and the sizars at Cambridge, who received their education and their commons in return for offices which were not at that time considered humiliating, and were often performed by youths who subsequently rose to high rank in the Church. Master the owner of Yotes Court studied or resided at Cambridge, and had his sizar in attendance. Hearne in his Diary constantly notes that this or that distinguished Academician had been a servitor in his youth, as for example Mill, the first English editor of a critical Greek Testament, and Potter, who rose to be Archbishop of Canterbury.

The cheapest kind of table linen was that supplied to the 'children' at Eton. It has a great many names, and is frequently described as three-quarter cloth, I conclude from the breadth of the material, three quarters of an ell or yard wide, for it does not seem that as yet the modern distinction of the ell and yard had been established, and proofs are occasionally supplied, as under the year 1637, that ell and yard were identical measures. It seems, from occasional entries of a higher quantity of linen for the masters, conducts, and fellows, and described as white, that the table linen of the boys was generally unbleached. But the commonest and coarsest kind of canvas is known as pickling, and appears to be used for cleaning plate.

The highest priced table linen which I have found is in 1605 and 1626. In the former of these years Corpus Christi College, Oxford, bought a cloth for the communion table at 20*s.* a yard; and in 1626, New College in the same University purchased at the same rate a table-cloth for Warden Pink. On both these occasions the material is described as damask, and this is generally high-priced. In 1613, King's College, Cambridge, buys broad damask at 10*s.* a yard, 'against the king's visit.' In 1675, Master gives 12*s.* a yard for damask, which I conclude to be linen, as it is entered with such products; and twice, in 1618 and 1663, table linen is bought at 9*s.* In the former case it is bought for the Master of S. John's College, in the

second, under the name of diaper, for King's College, and probably for the Provost. Of course the entries of these high-priced goods are far less numerous than those of common and second-best quality, but they are sufficient for the purpose of showing what was the cost at which these conveniences were procured.

Between 1634, when the first entry occurs, and 1671, the last, the fellows of Eton purchased for their own table what they call 'suits' of diaper. The record tells us that the suit consisted of a table-cloth, a cupboard-cloth, a towel and eighteen napkins; and generally, if previous entries can be relied on, the table-cloth contained eight yards, the cupboard-cloth two, the towel seven, while diaper napkins are at Eton almost invariably 14*s.* a dozen. In 1629, the cost of these items was 53*s.* 8*d.* With one exception, 1659, the price of the suit does not fall below 56*s.* In 1659 three suits are bought at 50*s.*, and were probably a bargain. In 1637, the College gave 65*s.*; in 1645, when everything was dear, 70*s.* In 1671 the material is called Sleasey diaper, that is Silesian; and in 1672 the College buys a 'piece' of Sletia diaper for 28*s.*, at half the price of the previous year's suit. It is probable then that the suit required two pieces, and that the pattern, if any existed, of the linen was continuous. From certain entries in which the quantity of cloth and the number of dozen napkins is given, it appears that a dozen napkins contained $9\frac{3}{4}$ ells or yards of linen. The napkin was therefore a full-sized towel of modern experience. After 1672 Eton ceases to enter particulars of its linen purchases, and the entries are chiefly obtained from Cambridge and Winchester.

As I shall take occasion to show, not a little of the linen purchased in England was of foreign origin. But it is also certain that the manufacture of textile fabrics, and among them linen, took a great start in the sixteenth and seventeenth centuries. A vast number of Flemings (the currently received figures being the inevitable exaggerations of those who guess at numbers) settled in England, during the last half of the sixteenth century, in order to escape the persecutions of Alva,

and particularly after 'the Spanish Fury' in 1576. Their settlement in England was wisely encouraged by the English Government, for they brought with them capital, traditional skill, and every motive for attachment to the country which sheltered them. They were above all weavers, for the Spanish Netherlands had long been the special home of the textile arts, especially for those which appealed to and satisfied general demand. It is well known that for generations after the time on which I am commenting, the crafts of the spinner and the weaver were entirely distinct. Yarn, linen, hempen and woollen, was spun in every household. The Shuttleworths hired women to spin, and the peasantry brought their home-spun yarn to Manchester, Leeds, Halifax, and a hundred other towns for the local weavers to purchase. Long after the time on which I am commenting, when certain of the Oxford parishes were incorporated under Gilbert's Act, the parochial officers adopted a spinning-wheel as their device on their seal. The preparation of the hurds of hemp and flax was a common labour in prisons, and not infrequently the prison for minor offenders was called the spinning-house. On the other hand, the craft of the handloom weaver has survived almost to living memory. A century ago, I am persuaded that every two or three villages, and all small towns, had their working weaver, who undertook to weave home-spun for customers, or, purchasing yarn, made it up into cloth for dealers.

I have been able, out of the materials which these domestic accounts supply, to construct ten tables of averages, three of the best table linen, of second best, of ordinary, of the commonest kind, that supplied to the Eton boys generally, of ordinary towelling, and of the two kinds of napkins, ordinary and diaper or damask. There are also three kinds of shirting or sheeting. One is Holland (the price of which is sometimes exceedingly high), another is of second quality, such as was used by heads of colleges, and what we should now call the middle classes, and the third ordinary sheeting or shirting, such as formed the shirts, sheets and surplices of boys at

school and college, servants, and others of inferior rank. It is an illustration of the simplicity of the age, that when in 1609 Shuttleworth buys canvas for shirts, to supply his servants and his sons, he gives only a penny a yard more for the latter than he does for the former. It may be also stated that home-spun is very cheap in Lancashire, and even the choicer kinds of linen are not at very high prices.

In order to avoid inconvenient fractions, I have adopted, as before, a hypothetical measure of the dozen, a quantity which is however occasionally found, though generally for woollen goods. The price of the best articles varies accordingly, both in the case of table-linen and shirting, especially as far as shirting is concerned, during the last half of the century, when the use of costly linen became a fashion and a frequent butt for satire. Thus in 1657 Master gives 14*s.* an ell for fine Holland, the purpose being the bands or falling collar of the time. In 1608, the shirting purchased for Prince Henry cost 13*s.* 4*d.* an ell; and the shirts, it seems, were trimmed or ruffed with cambric at a still higher price. In 1671, the Duchess of Richmond's purchases are at prices varying from 11*s.* an ell to 6*s.*; and in 1685, linen and lace, the former called frees Holland, are purchased for Johnson's daughter, Lady Lovelace, at from 11*s.* to 7*s.* an ell, and the latter, varying in price from 8*s.* to 30*s.* a yard, being employed to trim the chemises of the lady.

The prices of second-quality table-linen and Holland shirting are more steady, though even here considerable variations, very visible in the hypothetical measure which I have taken, occur. I have little doubt indeed that there was a good deal of bargaining over the price, that much of the linen was bought at fairs, and only occasionally from the local mercer, whose shop in the seventeenth century contained a great variety of wares, and that shrewd bursars, in hopes of making advantageous purchases, delayed a settlement till close on the end of the market, when the merchant would be willing to abate of his price rather than carry back unsold goods. The

experience which we have of tradesmen's shops is very modern. Two or three generations ago, people bargained for the goods they bought and sold on the principles which rule to this day in a corn or cattle market; and for example, linen purchased by the same corporation for successive years, described in the same words, and destined for the same uses, will vary in price by 15 to 30 per cent.

The cheaper the goods are, and the lower the quality, the more regular is the price. Thus the ordinary table-linen procured by the Oxford and Cambridge Colleges, the price of which fails me for two years only, is pretty uniform in value, though even here variations are discoverable, while the steadiest on the whole is the common canvas which supplied the table-linen of the Eton boys, and is given pretty regularly till the College ceased to keep account of the cost. The price of common napkins, which also fail me only for six years, is very steady. But the price of towelling, especially towards the latter part of the period, when it stands for forty years at nearly the same price, presents fewer changes than most others.

There are inevitable varieties of price in sheeting and shirting of the commoner kinds, for in the first twenty years the price is occasionally much higher than the cost of this article under ordinary circumstances is generally found to be, and these prices have somewhat raised the general as well as the decennial averages.

Looking at general prices of linen fabrics, it is plain that no material increase of price was effected in these commodities, whatever may be found as regards other objects in demand. I account for this mainly by the fact of the two great immigrations of foreign weavers, the Flemish about 1576, the Huguenots after 1685. But it is I think clear, that during the twenty years 1653–1672 the prices of nearly all kinds of linens rose, and during the last twenty years there was a general fall. The latter fact is I think entirely due to the Huguenot exodus. The foolish bigotry of Louis XIV and Madame de Maintenon, Louis

being then at the height of his arrogance and power, inflicted on France an industrial injury, only second to that done by Philip the Third of Spain when he drove the Moriscoes into exile, and with them expelled the hope of industrial progress from the country. My reader may find, among the notes which I have collected at the end of the sixth volume, some information of the liberal assistance which was given to the exiles by the High Church Colleges at Oxford and Cambridge.

As I have stated above, the origin of the linen is sometimes indicated at Cambridge, Eton and London. By this time I conclude that Holland had become a generic name, that it was as much manufactured at home for the English market as it was imported, though it is said that for a long time English-made goods were sent to Holland, especially to the neighbourhood of Amsterdam, to be bleached. In course of time the craft of the whitster was recognised in England.

Now the only unquestionably English linen which is designated in these accounts is Lancashire, or, as it is more frequently named, Preston. Between 1583 and 1624 I have found it sixteen times, and half of them are specified as Preston. It is not a high-priced cloth, for it ranges from 12*s.* to 20*s.* the dozen, and is at an average of 15*s.* In the earlier accounts its purpose is said to be for cleaning plate.

Scotch cloth, used it seems generally for shirting, is found in the early part of the period and at its conclusion. It is of very variable price and quality, being at 36*s.* a dozen in 1596, at 14*s.* in 1655. An average of ten entries gives 20*s.* 10¼*d.* In the year 1596 it is described as fine Scottish, in 1655 as purchased for the foot-boy's handkerchief. In the early years it is bought by Lord Pembroke, in later times by Master, the last purchase being made by S. John's College for surplices, the record informing as that a surplice took nearly 7¾ ells.

The most frequent foreign linen is Roan, which is I suppose Rouen stuff. It is generally a cheap article, from 14*s.* to 20*s.* the dozen, but the last entry gives a price of 30*s.* An average of twenty entries gives a price of 16*s.* 4*d.* Roan

canvas is bought almost exclusively for Cambridge, and appears to be used for the lower tables, and sometimes for the stable.

Normandy canvas is plainly a higher quality than Roan. The average of twelve entries between 1613 and 1640 is 23*s.* the dozen. It is quoted along with Roan, and is generally used for the second tables at Cambridge.

Lubeck, Lubick and Lubex is bought exclusively by Eton for the boys' table-linen. It is a cheap coarse canvas, varying from 9*s.* to 12*s.* a dozen. The purchases are between 1621 and 1672. The average from sixteen entries is a little over 10*s.* 5¼*d.* the dozen.

Hamborough is found very generally, even at Oxford. It may have been so named from its origin, but I think it is probably a generic name for some kind of towelling. Even when designed for this purpose it varies considerably in price in the same year. In 1584, when it is bought for towels, it is at 18*s.* the dozen, and the same price in 1599. In 1600 it costs 16*s.* at Cambridge, 11*s.* at Oxford. In 1601 it is 9*s.* at Cambridge, 12*s.* at Oxford, but from these dates it varies from 12*s.* 6*d.* to 9*s.* 6*d.* An average of fifteen entries gives a price close on 12*s.* 3*d.* a dozen.

Osenbrig is found occasionally, at Cambridge, Eton and Oxford, and seems to be of about the same quality, to have the same object, and to be about the same price as Hamborough. The average price of it is 11*s.* 9*d.* the dozen. I presume that it is the same as the Oxenbridge of the earlier accounts, vol. iv. p. 556.

Between 1605 and 1636 occur eight entries of a canvas or linen called Jackson's cloth. Except in one year, 1623, when it is table-linen, it is a cheap fabric, apparently towelling, and ranging between 10*s.* 3*d.* and 12*s.* 9*d.* the dozen. The material is probably that of some dealer with whom the King's College bursars dealt at Stourbridge.

In 1667, 1670 and 1674, Master buys Gent or Gentish Holland for shirts. This is probably Ghent cloth, so produced

or reported to be produced. The prices vary, being 38*s.*, 20*s.* 3*d.*, and 24*s.* the dozen.

Another product is Dornick or Dornix, apparently used for window-blinds. It is said to have been the product of Tournay, whose Flemish name is Dornix or Dorneck. It is generally bought for the house of the College Head. The average price of five entries is close upon 27*s.* 9*d*, the dozen.

Besides these there are few single entries of linen fabrics. In 1598 Shopher cloth for sheeting, evidently a superior article, is bought at 29*s.* the dozen. In 1606 Magdalen College buys Vandelay canvas at 30*s.* the dozen. This is said to be the same as Vittery canvas, extensively used for sails, on which I shall have something to say presently. In 1610 King's College buys Vernich peristromata for their Provost at 21*s.* 6*d.* the dozen. The price of these coverings seems to indicate a linen fabric, but I am entirely in the dark as to its meaning; and at Cookesden in the same year, a place on the locality of which I am as yet unable to be precise, Murles cloth for sheeting, an article which is quite obscure to me, is bought at 22*s.* the dozen.

In 1654 the owner of Mounthall buys two qualities of Bowsell, one at 13*s.* the dozen, the other at 7*s.*, respectively, designated as fine and coarse. In 1633 Eton buys Brunswick at 10*s.* for the boys' table-cloths; and in 1656 King's College buys Brunswick linen at 8*s.* the dozen, probably for kitchen use. In 1661 Hugat is bought at Winchester at 5*s.* the dozen, nearly the lowest-priced article which I have found; and in the same year and place Brins linen is bought at 34*s.* In 1663 King's College buys Russy cloth at 6*s.* the dozen for rubbing plate, and in the same year Garlick Holland is bought at 14*s.* Fenbridge brown is found in 1623 as material for the Eton boys' table-linen, Ost cloth in 1603 at 9*s.*, and Shepherd's cloth, a rather high-priced material, in 1605, 1608, and 1619, at an average of 28*s.* 4*d.*

After canvas, linen and Holland, the commonest technical name in my accounts is Lockram. In the fifteenth and most

of the sixteenth century this material is extensively used for shirting and surplices, in later times it appears to be employed for towelling, for napkins, and similar objects. I have noted, between 1589 and 1681, the earliest and latest of my entries, sixty-three years in which this article is priced. With the exception of one year, 1600, when it costs 22*s.* the dozen at Cambridge, the price does not go above 19*s.* 6*d.* or below 11*s.*, and is generally at about 15*s.* An average of the whole number of entries, the price declining at the close of the time, is almost exactly 15*s.* 3*d.*

There are four entries of buckram. I find nothing which shows that it was the stiffened material with which we are at present familiar. The average of the four entries is 15*s.* 6*d.*

I have found Dowlas fifteen times. The price varies very much. In 1658 I have found it, described as broad, at 34*s.* the dozen, in 1660 it is purchased at 10*s.* 6*d.* In 1631 Caryll buys it at 33*s.* In 1645 Cambridge buys it in large quantities, apparently for table-linen, at 13*s.* 9*d.*, while New College gives 15*s.* I conclude that the difference of price lay in the breadth of the material. The price is most commonly at almost 16*s.* Towards the end of the period huckaback is found; in 1698 at 17*s.* the dozen, in 1702 at 40*s.*, when it is described as fine. Tufted canvas is found in 1598 at 28*s.*, in 1649 at 19*s.* 3*d.* a dozen.

In 1621 and 1626 red cotton is quoted at 25*s.* and 20*s.* the dozen. It was probably bought for lining, as is also the blue linen of 1598 at 16*s.*, and purple linen at 13*s.* in 1673. Bed-ticking, or tyke, is bought in 1631 at 14*s.*, in 1654 at 21*s.*, in 1663 at 19*s.* 3*d.* the dozen.

In the earlier years, especially at King's College, Cambridge, whose rents were largely received in kind by that corporation, sacking is frequently purchased by the bolt. I conclude that this quantity contained about twenty-four yards or ells, for the average price is nearly 11*s.* 6*d.* The sack generally contained four bushels. Sacking by the yard or ell costs on an average of thirteen entries about 8*s.* the dozen.

Narrow cotton is found eleven times, at an average of nearly 8*s*. 10*d*. the dozen. Broad is bought once at 44*s*. It was I believe generally employed as lining. In 1691 Shuttleworth buys three pieces of black cotton, one of fifteen yards, another of sixteen, and the third of ten yards.

Cambric is found in fourteen years, generally bought by the ell, occasionally by the yard, once by the piece. In 1608 it is bought for Prince Henry, is called fine, and costs 20*s*. and 13*s*. the ell. In 1658 Master buys it at 10*s*. Generally however the price appears to decline. In 1583 Lord Pembroke gives 8*s*. an ell, in 1601 Archer of Theydon Gernon pays 9*s*. In 1627 the owner of Mendham gives 8*s*. But the rest of the entries are between 4*s*. and 6*s*. the yard or ell. The piece at 45*s*. is bought for the Duchess of Richmond, and I judge contained ten yards or thereabouts. The average price by yard or ell, omitting the Prince's purchase, is 6*s*. 4*d*.

Lawn is a little dearer than cambric. In 1584, Lord North buys two ells at the high price of 15*s*. the ell. It is most commonly sold by the yard. Omitting this entry of 1584, the average price of twelve other entries is 6*s*. 5*d*. A cobweb lawn apron costs 10*s*. in 1685.

Calico, an Indian product, is bought by the yard. Lord Pembroke gives 2*s*. 8*d*. the yard in 1583, and it cost 3*s*. in 1626 and 1665. In other years its price is much lower, between 1*s*. and 2*s*. The average of eleven entries, including the above, is 1*s*. 11½*d*. It was used for curtains.

Dimity is found seven times. It is generally in the latter period bought by the piece of twenty yards. The earliest entry which I have found is in 1631, when Lord Spencer buys it at 1*s*. 10*d*. the yard, describing it as white. This is the highest price paid. In 1650 Dering gives 8*d*. a yard for it, under the name of Indian dimity. The other purchases were made by Master, at a little over or under 1*s*. a yard. It appears to have been used by women only.

In 1594 I find bone lace at 1*s*. 4*d*. the yard. In 1685 there are several entries of this material at prices ranging from 2*s*. 4*d*.

a yard to 30*s*. The fashion of costly dress for men as well as women progressed greatly during the seventeenth century, and most probably the demand for lace trimming greatly raised the price.

Two kinds of napkins, one for the use of the fellows and another for the head of the College, are regularly purchased. The ordinary kind varies but little in price, but slowly rises, till we come to the generally dear period 1643–72, when a considerable increase may be noted. During the last thirty years common napkins are cheaper again. They are almost invariably bought by the dozen. Though there is not over the whole period a much more marked rise in the superior napkins than there is in ordinary articles, they are occasionally very dear, perhaps, as Antony Wood suggests, because the warden or provost's wife—whom he evidently considers a noxious introduction to academical life—pressed the College to supply her with more expensive appointments. The high-priced article of 1679 was purchased for the Master's lodge at S. John's College, Cambridge.

There are also purchases of table linen, not by ell or yard, or by the article, as table-cloths, cupboard-cloths, towels long and round, sheets, &c., which might be analysed by comparison with known quantities generally required for such conveniences.

In 1650 and in 1651 Dering buys kandkerchiefs at 19*s*. and 21*s*. the dozen, but no statement is made as to the material of which they were composed, or the object for which they were purchased.

Besides these entries of linen for domestic use, I have collected from certain navy accounts the price of ship's canvas of various kinds between 1599 and 1647. There are four kinds purchased in bulk, one a home product, which is always purchased, called Ipswich canvas, and by the bale. The other three appear to be foreign, Noyales, Danske, and Vittery. The former is always bought by the bale, but in the year 1630 it is purchased by the bolt and the yard; the latter occasionally by the bale, more frequently by the yard. Danske Poldavies

are bought for this purpose by the bolt, though once or twice Poldavy is purchased at a very cheap rate for sacking. Danske is a cheaper canvas by the bolt than Ipswich is. Besides these, there is a considerable purchase of navy canvas by the yard in 1627.

The highest price of Ipswich canvas is in 1619, when it costs 33*s.* 4*d.* the bolt. But this is the cheapest year of Vittery canvas, for it is only £11 7*s.* 10*d.* the bale, in which year it is also bought by the yard. It appears that Ipswich canvas began to rise in price after 1620 and 1621. The Ipswich bolt seems to contain, if one compares the year in which it is bought at once by the yard and bolt, about seventeen yards, while the bale by the same test would be rather over 264 yards.

An average taken from sixteen years' purchases of Ipswich bolts is nearly 26*s.* 8*d.* Another, taken from thirteen years of Noyales bales, is nearly £18 2*s.* 8*d.* An average from four entries of Vittery bales is £19 2*s.* 1*d.*, and one from ten entries of Vittery canvas by the yard or ell gives 14*s.* 1½*d.* the dozen. There are only three entries of Danske Poldavies, the average price of this article being 19*s.* 4½*d.* the bolt. It is clear from a comparison between the prices paid in this period with those of the earlier part of Elizabeth's reign, that the cost of sail-cloth was distinctly declining; and this is no doubt due to the improvement in the manufacture of all those fabrics which the immigrant Flemings effected.

The following tables give annual averages of second-best table-linen, of inferior, of ordinary and of superior napkins, of inferior Holland, of the commonest canvas, of shirting and sheeting and of towelling, all by the dozen ells or yards, or, in the case of napkins, by the dozen pieces. The decennial averages contain also those of the choicest table-linen and the dearest Holland.

PRICE OF LINEN.—AVERAGES.

	Second best table, doz. yds.	Ordinary, dozen yards.	Napkins, ordinary, dozen.	Napkins, superior, dozen.	Holland, inferior, dozen.	Canvas, commonest table, dozen, Eton.	Sheeting or shirting, dozen.	Towelling, dozen.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1583-4	.....	15 0	8 3¾	.....	16 0	7 9	.....	.....
1584-5	42 0	14 0	7 6	.....	18 0	9 0	32 0	18 0
1585-6	36 0	18 6	8 0	12 8	.....	.....	13 6	14 0
1586-7	44 0	19 1½	8 0	12 0	36 0	.....	26 0	7 9
1587-8	41 6	19 6½	8 3	12 0	32 0	9 6	18 0	12 0
1588-9	40 0	18 6	8 10	12 0	29 0	9 0	20 0	12 0
1589-90	36 0	18 0	9 0	.....	.....	10 9	16 0	10 9
1590-1	40 0	18 0	8 3	.....	.....	9 0	24 0	.....
1591-2	.....	17 0	8 0	17 0	.....	9 6	.....	.....
1592-3	31 0	16 2	8 11	.....	.....	9 6	16 0	.....
1593-4	40 0	14 2	8 6	14 0	.....	10 0	18 0	10 0
1594-5	30 0	14 6	8 9	14 0	33 0	9 0	.....	.....
1595-6	31 0	.....	7 10	13 4	.....	9 3	27 0	11 0
1596-7	40 0	16 9	8 8	.....	36 0	8 0	.....	.....
1597-8	33 0	17 0	8 0½	.....	24 0	9 3	.....	12 0
1598-9	38 0	15 9	8 7¾	.....	18 0	9 0	29 0	.....
1599-1600	47 0	15 7	8 11¼	.....	.....	8 0	16 0	.....
1600-1	42 6	17 5	8 4	20 0	.....	16 0	16 0	11 6
1601-2	30 0	18 0	8 2½	.....	.....	8 3	16 0	12 0
1602-3	35 0	14 10¾	7 9½	13 0	.....	10 6	19 0	10 3
1603-4	39 1½	18 6	9 0	12 6	16 0	8 0	.....	12 0
1604-5	34 0	15 10¼	8 1¾	15 0	28 0	10 0	.....	10 0
1605-6	30 0	17 6¼	.....	.....	.....	7 0	17 0	12 4
1606-7	30 2	17 5	8 10	13 3	.....	8 3	15 0	11 6
1607-8	33 8	17 8	.....	12 0	.....	9 0	14 0	12 0
1608-9	29 4	17 0	9 6	12 10½	43 0	9 6	14 0	12 0
1609-10	37 0	15 8	9 9½	14 6	33 0	9 0	14 0	14 0
1610-1	29 0	15 6	8 3	12 0	.....	.....	14 4	10 0
1611-2	40 0	17 6	9 2¼	14 1½	.....	9 0	14 4	17 3
1612-3	32 0	17 2	8 6	.....	26 0	.....	13 9	13 6

	Second best table, dozen yards.	Ordinary, dozen yards.	Napkins, ordinary, dozen.	Napkins, superior, dozen.	Holland, inferior, dozen.	Canvas, commonest table, dozen, Eton.	Sheeting, or shirting, dozen.	Towelling, dozen.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1613–4	54 0	18 6	9 0	.....	.....	.....	13 0	14 0
1614–5	.....	17 0	9 7	.....	.....	9 0	13 0	10 0
1615–6	36 0	17 2½	9 3	13 0	.....	9 0	13 3	10 0
1616–7	33 0	19 4	9 8	12 0	.....	.....	.....	12 6
1617–8	29 4	15 3	9 8	12 0	30 0	9 0	12 0	12 0
1618–9	34 9	17 4	9 5	13 0	.....	.....	12 9	13 0
1619–20	40 0	21 8	8 11	12 0	38 0	9 6	24 0	13 3
1620–1	38 6	16 9	9 0	35 0	33 0	.....	14 3	.....
1621–2	36 4½	18 6¾	8 7¾	11 6	.....	9 0	13 0	16 0
1622–3	35 0	17 9½	9 1¾	14 0	28 0	.....	12 0	11 0
1623–4	36 0	22 0	9 4¾	12 0	.....	9 0	12 0	15 0
1624–5	.....	16 0	8 8	.....	.....	9 0	12 0	11 0
1625–6	37 0	18 0	.....	12 0	.....	9 0	12 0	.....
1626–7	42 0	16 5	8 9	12 0	40 0	9 6	12 0	15 0
1627–8	37 0	20 7	9 11½	14 0	34 0	.....	12 0	.....
1628–9	43 0	17 3	9 4¾	12 10	27 0	10 0	17 0	15 0
1629–30	39 0	16 0	10 8	14 0	.....	10 0	.....	.....
1630–1	48 0	17 0	9 0	14 0	.....	10 0	.....	.....
1631–2	42 0	16 0	9 0	14 0	26 0	10 0	12 0	.....
1632–3	41 0	16 10	8 0½	14 0	30 0	10 0	12 0	12 3
1633–4	42 0	17 3	9 9	13 6	.....	10 0	12 6	.....
1634–5	.....	17 9	9 0	.....	.....	10 0	12 6	.....
1635–6	.....	19 0	9 0	14 6	40 0	10 0	13 9	.....
1636–7	30 0	18 0	9 5¼	.....	.....	10 0	12 9	.....
1637–8	43 7½	27 0	10 3	14 0	.....	10 0	13 3	.....
1638–9	30 0	17 6	9 0	12 6	24 0	10 0	13 6	16 0
1639–40	42 0	18 0	9 4	15 0	.....	10 0	14 3	16 0
1640–1	.....	18 0	9 0	.....	.....	10 0	13 0	16 0
1641–2	.....	20 0	.....	12 6	.....	11 0	13 0	.....
1642–3	42 0	16 0	.....	12 0	26 0	.....	12 0	.....
1643–4	.....	.....	11 6	.....	.....	.....	13 0	12 0
1644–5	43 6	20 0	.....	13 11	.....	.....	13 0	13 0
1645–6	28 0	17 0	7 6	15 0	.....	10 6	.....	16 0
1646–7	.....	16 0	11 1	13 10½	.....	10 0	14 0	.....

	Second best table, dozen yards.		Ordinary, dozen yards.		Napkins, ordinary, dozen.		Napkins, superior, dozen.		Holland, inferior, dozen.		Canvas, commonest table, dozen, Eton.		Sheeting or shirting, dozen.		Towelling, dozen.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
1647-8	32	0	18	8	10	6	12	0	36	0	10	6	16	0	14	0
1648-9	34	0	18	3	12	0	16	0	36	0	10	6	.....		16	0
1649-50	.....		17	9	12	0	14	0	.....		.....		.....		.....	
1650-1	40	0	18	2½	9	4½	12	0	39	0	13	0	17	0	12	6
1651-2	36	0	20	7½	13	6	14	0	.....		.....		20	0	16	0
1652-3	36	0	18	8	12	0	.....		50	0	.....		.....		14	0
1653-4	40	0	22	6	12	0	13	9	36	0	9	6	.....		14	0
1654-5	36	0	20	9¾	12	0	.....		36	0	11	0	15	0	12	0
1655-6	32	0	18	2½	11	0	13	0	44	0	.....		.....		11	0
1656-7	44	0	18	6	11	7½	.....		46	6	10	0	.....		16	0
1657-8	36	0	17	9	12	3½	16	0	36	0	14	0	25	0	14	0
1658-9	44	0	21	9	11	0	.....		54	0	10	6	16	0	11	0
1659-60	.....		21	5	10	3	.....		52	0	10	0	.....		11	0
1660-1	.....		16	2	10	9	16	0	36	0	.....		13	6	11	0
1661-2	44	0	17	0	11	0	.....		58	0	10	6	27	6	11	0
1662-3	42	0	18	5	11	0	.....		.....		10	0	16	3	11	0
1663-4	39	0	19	9	11	0	14	0	44	0	10	6	18	0	13	0
1664-5	32	0	17	5	11	6	15	0	.....		11	6	14	6	11	6
1665-6	48	0	20	2¾	12	3	.....		48	0	12	6	17	0	7	6
1666-7	48	0	20	0	12	0	13	6	49	0	.....		18	0	11	6
1667-8	40	0	17	1	11	3	14	0	38	0	12	0	20	0	10	6
1668-9	39	0	15	9	11	1½	13	6	44	0	12	0	24	6	10	0
1669-70	36	0	19	2¼	11	11½	.....		42	0	12	0	.....		10	6
1670-1	40	0	17	3¾	12	6	14	0	42	0	12	0	20	3	10	6
1671-2	34	0	18	10	11	0	.....		38	0	12	0	17	9	11	6
1672-3	41	0	20	5½	11	6	.....		.....		12	0	.....		11	6
1673-4	36	0	15	9	10	6	.....		38	0	.....		17	0	10	6
1674-5	38	0	16	9	10	6	.....		.....		.....		24	0	10	6
1675-6	32	0	16	3	11	0	.....		.....		.....		13	0	10	6
1676-7	32	0	16	0	10	6	.....		.....		.....		12	6	10	6
1677-8	38	0	18	0	10	6	.....		.....		.....		14	0	10	0
1678-9	40	0	15	3	10	0	.....		.....		.....		14	6	10	0
1679-80	38	0	16	0	10	6	32	0	36	0	.....		14	0	10	6
1680-1	40	0	19	1	10	6	.....		.....		.....		12	8	10	6

	Second best table, dozen yards.	Ordinary, dozen yards.	Napkins, ordinary, dozen.	Napkins, superior, dozen.	Holland, inferior, dozen.	Canvas, commonest table, dozen. Eton.	Sheeting or shirting, dozen.	Toweling, dozen.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1681–2	37 0	23 6	10 6	.....	.....	.....	12 0	10 6
1682–3	.....	16 0	10 6	.....	.....	.....	12 0	10 6
1683–4	.....	17 0	9 9	.....	.....	.....	12 11½	10 6
1684–5	.....	16 0	10 6	.....	.....	.....	.....	10 6
1685–6	27 0	16 0	10 6	.....	.....	.....	.....	10 6
1686–7	44 0	16 6	10 6	.....	38 0	.....	13 0	10 6
1687–8	26 0	15 4	10 3	.....	32 0	.....	12 9	10 6
1688–9	.....	16 8	10 3	.....	.....	.....	18 6	12 0
1689–90	24 0	16 8	9 9	.....	.....	.....	14 6	10 6
1690–1	.....	16 8	10 6	.....	.....	.....	12 3	10 3
1691–2	.....	16 8	9 9	.....	.....	.....	.....	10 6
1692–3	.....	18 4	9 7½	.....	.....	.....	.....	10 6
1693–4	....	16 0	9 9	.....	.....	.....	.....	10 6
1694–5	.....	16 0	9 9	.....	.....	.....	.....	10 6
1695–6	30 0	16 0	10 6	.....	.....	.....	.....	10 6
1696–7	30 0	17 4	10 6	.....	.....	.....	17 0	10 6
1697–8	.....	17 4	10 6	13 0	.....	.....	.....	10 6
1698–9	.....	17 4	10 6	18 0	.....	.....	12 0	10 6
1699–1700	.....	16 9	10 6	.....	.....	12 0	.....	10 6
1700–1	.....	16 9	10 6	.....	.....	.....	17 6	10 6
1701–2	.....	16 9	10 6	.....	.....	.....	.....	10 6
1702–3	42 6	16 9	10 6	18 4	40 0	.....	.....	10 3

Decennial Averages.

	Second best table, dozen yards.		Ordinary, dozen yards.		Napkins, ordinary, dozen.		Napkins, superior, dozen.		Best table, dozen.		Holland shirting, best, dozen.		Holland, inferior, dozen.		Canvas, commonest table, dozen, Eton.		Sheeting or shirting, dozen.		Towelling, dozen.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
1583–1592	38	9¾	17	4½	8	3¾	13	1½	67	6	60	0	26	2	9	3	20	8¼	12	5
1593–1602	36	7¾	16	0	8	4½	14	10½	53	9½	41	6	27	9	9	8¾	20	1¾	11	1½
1603–1612	33	5¼	16	11½	8	6¾	13	3¼	47	2	69	0	29	2	8	8½	14	6	12	5½
1613–1622	37	5¼	17	11¼	9	2¾	15	3¾	65	5	45	0	32	3	9	1	14	1¾	12	5
1623–1632	40	6¾	17	7¼	9	2½	13	2½	.....		51	6	31	5	9	7¼	12	7½	13	7¾
1633–1642	38	3¼	18	10¼	9	4¼	13	5	60	0	64	0	30	0	10	1¼	13	0½	16	0
1643–1652	35	6	19	3	11	0½	13	9	.....		80	3	40	3	10	9½	15	7¾	14	2¼
1653–1662	39	9	19	3	11	3½	14	8¼	64	0	95	3	43	9	10	8¼	18	10½	12	2½
1663–1672	39	8½	18	7¼	11	7¼	14	0	84	6	86	0	43	1	11	10	18	9	10	9½
1673–1682	36	9½	17	3	10	6½	32	0	105	0	69	0	37	0	.....		14	6½	10	4¾
1683–1692	30	3	16	6	10	2¾	.....		60	0	108	0	35	0	.....		14	0	10	7½
1693–1702	34	2	16	8½	10	4¼	16	5	.....		.....		40	0	12	0	15	6	10	5¾
Gen. Average	36	9¼	17	9	9	10	15	9¾	67	5¾	77	9	34	7¾	10	2	16	10½	12	2¾

CHAPTER XXI.

ON THE PRICE OF TEXTILE FABRICS. CLOTH, ETC.

THE collections which I have been able to make for the present period have been supplemented by two others which belong to an earlier epoch, when evidence was scarce and broken. The first is a continuous record for fourteen years (1322–1335) of purchases made by the prior and monks of Christ Church, Canterbury, for the use of the officials in their employ. The account is inscribed in the ledger book of the monastery, a collection of notes and letters of interest to the inmates and rulers of this great monastic corporation. Some of these letters, written during the dangerous times which were finally marked by the deposition of Edward II, are of great historical importance, but have not, as far as I know, been printed, probably not examined by students of history.

The corporation buys four different kinds of cloth, for the clerks, for the gentlemen, for the upper servants (as I interpret 'de mestier'), and for the lower servants or garciones. The purchases for the clerks are generally of the highest quality, and it seems, as the seneschal of the monastery is included in the first class, that the clerks are the officials employed in the exchequer or estates office of this wealthy corporation, some of whose bailiffs in the different manors were the heads of old county families in Kent, as for example the Knatchbulls, or Knecheboles, as they call themselves in the fifteenth century. The seat indeed of this family was one of the possessions of the priory, of which the hereditary steward contrived to get possession at the Dissolution.

Now these pieces of cloth contained by law twenty-four yards. That the statute was obeyed is I think fairly proved by the fact that the allowance made to each official, and valued in money, gives, when made the divisor of the whole payment for each kind of cloth, a product which has no fraction in the result. From this calculation I find that the establishment to which Christ Church priory gave annual liveries was as follows: the seneschal and clerks twenty-four, the gentlemen twenty, the higher servants sixteen, the lower twenty, eighty persons in all, maintained by this great and ancient monastery, in whose custody was the shrine of Becket, the most highly venerated place of pilgrimage in the Western world, for the due maintenance of which the prior and monks, among other objects, provided and supported this costly service. Many of these officials were also provided with silk hoods, lined or trimmed with fur, some of which is miniver or ermine, the costliest fur known to our ancestors, while more were supplied with bugey, which seems to have been squirrel, and most with lambskin.

I need not excuse this digression, for my reader will find that in vol. i. p. 589, I have only been able to give one entry of best cloth during the thirteen years, and six of inferior, while in the present case four kinds are given for each of the thirteen years. I may add that on dividing the quantity of cloth under each head by the number of persons in each department of the prior's service, I find that, in the same way, without fractions, the allowance made was four yards to the seneschal and clerks, and six to each person in the other three classes. The origin of the cloth is not mentioned, but some of the fur is bought in London.

The second of these supplements is extracted from the archives of the Grocers' Company, a few of the earliest of which have recently been photographed and printed by that ancient guild. They belong to the last year of the fourteenth and the first few years of the fifteenth century, when the guild numbered among its members some of the most con-

siderable London citizens; among others, the two Chicheles, brothers of the Archbishop of Canterbury, who founded All Souls and S. Bernard's Colleges in Oxford, with the school and hospital of Higham Ferrers, from which place the family sprung. Records of the prices of woollen stuffs are given for thirteen years between 1400 and 1422 inclusive, during which period my information was more copious (vol. iv. p. 583) than it was for the earlier period, but might still be conveniently enlarged.

The Grocers buy large quantities of ray, medley, green, tawney, blue, sanguine, and murray for livery gowns, ray being the commonest material. A note under two of the years informs us that the ray cloth was bought at Salisbury. I infer from the fact that ray is bought in such large quantities, that this cloth formed the body of the livery gown, and the other kinds of cloth were used as trimmings or facings to the ordinary stuff. One of the entries states that the piece as before contained twenty-four yards. From the same year it is clear that there were two qualities of ray, possibly differing only in the breadth of the cloth, one of which is at 45*s.* the piece, the other at 98*s.* In 1421 it is said that some of the pieces of green were twenty-two yards in length. Under the year 1420 the pieces of ray and the pieces of blue must either have been of different quality or of different dimensions. Again, in 1414 the piece of blue is said to contain over thirty yards.

Besides the cloth which the Company purchased for the livery, they bought it for their beadle in 1401, dressing him in green, and allowing him three and a-half yards; and they gave clothing to their minstrels in 1421, probably about the same quantity to each. The 'mystreviler' of the same year is the French cloth from Normandy, which is mentioned so frequently and with such varieties of spelling in the accounts of the fifteenth century (vol. iv. p. 566). The Grocers' accounts do not contain purchases of fur for the official robes of the guild, and on the whole the price at which the Corporation

buys its cloth is lower than that at which the better qualities of the Canterbury cloth, near a century earlier, were purchased. The pomp of attendance in the occasional appearances of the Prior of Canterbury, when he quitted the great cloister for the city in which he dwelt, and with which he was quarrelling about the time of the accounts which I have described[1], must have been that of a great ecclesiastical prince, while in ordinary times his gentlemen must have been employed in marshalling the pilgrims as they crowded to the shrine of the great English saint.

I now turn to the period immediately before me, and to the information which I am able to give as to the price of clothing during the last years of the sixteenth century and the whole of the seventeenth. The regular sources of information, which are almost continuous, are three—the cost incurred for clothing the choristers at King's College, Cambridge, the charges for the boys at Eton, and those for the servants at the same place. For a few years the Cambridge College buys by the piece, here plainly of twelve yards. For a considerable time the purchases at Eton are by the pannus, which from several entries I find to have been at an average of thirty-three yards. The cloth of the Eton servants was azure or blue azure, and I am told that this kind of livery is continued to the present day. This purchase is almost invariably by the 'cloth' of twenty-seven yards, and seems to have generally been of good quality. The boys' cloth is frequently changed, but the servants' livery is very steadily kept at the same quality and price, the latter, as will be seen, rising in some degree as time goes on.

Blue azure only fails me for five years. In 1624 the College account states that it could not be purchased in the time of infection, and that the servants were allowed 148*s.* in lieu, the average price of the piece at this time being 230*s.* For the three years 1641–1643 all Eton accounts are lost, the only considerable gap in the archives of the school. By an

[1] See for this quarrel, Six Centuries of Labour and Wages, p. 363.

oversight of the clerk or bursar, there is no entry under 1690. But by this time, the entry is a regular one, and I have no doubt whatever that the College bought its stock this year, and at the customary price of 250*s*.

The gaps at King's College are more numerous. There is no account for eighteen years. Some of these are due to the fact that the Particular book of the College is less exact than the full account which, under the name of Mundum, was rendered yearly. One year has been entirely lost, except as regards the commons and their cost. During the longest interval, the seven years 1653–1659, the intrusive fellows had put an end to the chapel services, and had engaged no fresh choristers, though they seem to have still given liveries to those whom they found on the foundation when they were put into the dispossessed fellows' places, and set to work to appropriate all the funds which they could lay their hands on. At the Restoration the choristers were restored at once with the old service, and the record is thenceforward regular.

The entries for the Eton boys are lacking for only three years, 1641–1643, for which years, as I have said, all the accounts are lost. The practice of buying cloth by the piece of 33 yards on an average continues, with some entries by the yard, and once by the dozen, down to 1627, after which purchases by the yard are regularly made. The first entry indicating the origin or character of the Eton boys' cloth is in 1603, when it is said to be Suffolk cloth. In the next year it is described as Kentish cloth, as it is in 1608. In 1610 it is said to be 'sad Kent.' In 1620 it is 'sad blue.' In the six years 1629–1634 it is again Kentish cloth. In 1671 and 1672 it is black cloth. But after the last of these years it is not particularly designated. The cloth supplied to the Eton boys was generally of better quality, i. e. of higher price, than that which Cambridge bought for the choristers.

In 1583, Eton College bought a piece of cloth for 'gentlemen' at the high price of 243*s*. This, if we take thirty-three yards to the piece, would be at the rate of a little over

7*s.* 4½*d.* the yard. The 'gentlemen' are the boys other than those of the foundation, a few of whom the College took and educated, and on this occasion undertook to provide with clothing.

From 1644, with which year the existing or discovered Winchester accounts commence, there is a generally unbroken account of the costs incurred for clothing the boys on Wykeham's foundation. The cloth is bought in considerable quantities, and generally at the same price, 5*s.* a yard. On one occasion, 1649, it is a little cheaper; on one other, 1683, it is a little dearer. The cloth bought for the Winchester boys, if we can infer from its price, was of the same quality as that supplied to the King's College choristers, and inferior to that served out to the Eton foundation.

The ancient custom, at one time almost universal, of serving out pieces of cloth to the various members of the foundation, relics of which still survive in some departments of the executive government, had now been almost entirely abandoned in the old corporations, a money payment in lieu of clothing being generally adopted, and regularly forming one of the numerous small allowances which made up the salary of the higher members of the foundation. But a curious relic of the old custom is still occasionally visible in the accounts of S. John's College, Cambridge. Here there are found in certain years (the first time in 1606) entries of broad or livery cloth, down to 1682, invariably at the same price, 12*s.* a yard. Twenty-four years, one the last in the period, contain three entries; two others, 1682 and 1689, have the same entry at 11*s.* These entries are sometimes given for six or less years together, and then cease. Now the price is to my mind a clear proof that this could not have been bought for servants, for it is as dear as the best kinds of English-made cloth at the time, and I can only infer that the facts point to an occasional recurrence to the ancient custom, or that some members of the foundation claimed their allowance in kind.

The cloth was sometimes purchased as it came from the weaver and dyed afterwards, the charge (as in 1602) being noted. If it were already dyed, it was frequently undressed, that is, it required to be shrunk and sheared. Sometimes it is described as undressed, sometimes as dressed and finished. The cost of dressing four cloths and 57 yards for the Eton boys in 1613 is given at 40*s.*, that is at about 3*d.* a yard. In 1611, the servants' azure is undressed and costs 205*s.* In 1612 it is dressed and costs 220*s.* This would give a little over 6½*d.* the yard, if the price is unchanged. In 1615 dressed cloth for the boys is at 6*s.* 8*d.*, and 6*s.* 5½*d.* the yard. But I have been obliged, in the absence of accurate information on the subject, to treat all entries of the three principal kinds of cloth as of the same character.

I have also noted entries of the best cloth of the year. It greatly varies in value, generally according to its origin, sometimes according to its avowed quality. It would appear too, from the few accounts of rich persons which I have met with, that when they were in the dress of ordinary life, the materials which they used for their own wear were not much superior to those of the liveries which they bought for their servants, their expenditure on their gala dress only being sumptuous. Thus in 1593 Lord Pembroke buys broad-cloth at 13*s.* and green cloth at 11*s.* for himself, frieze at 1*s.* 6*d.* probably for his own clothing, and pays at the rate of 10*s.* for his servants' state livery.

The first entry I have found of local produce is Devonshire cursey (I retain the original spelling) in 1596. The next is Peniston purple in the following year, Peniston being near Sheffield, and once a famous place for ordinary cloth, giving a name to a special produce. I find Spanish medley in 1621 at 15*s.* 6*d.*, green Peniston in 1627 at 5*s.* 4*d.*, Spanish cloth at 18*s.* in 1631, and Venice camlet in the same year at 12*s.* Spanish cloth at 17*s.* 6*d.* and 24*s.*, and fine Segovia at 28*s.*, are found in 1633. In 1646 Master buys Spanish cloth at 23*s.*, and in 1648 right French scarlet at 45*s.* In 1649 Dering

buys serge de Chalons at 4*s.* 8*d.*, ras de Cypre at 8*s.*, and Master drap de Bery at 14*s.* In 1650 French tabby is at 9*s.*, and Spanish cloth at 26*s.* In 1651 Spanish cloth is at 24*s.*, in 1652 at 26*s.*, and in 1655 at the same price. Holland camlet is at 10*s.* and 7*s.* in the last-named year. In 1656 serge de Roan is at 3*s.* 6*d.*, in 1657 Bristol carpeting at 3*s.* and Spanish cloth at 25*s.* In 1659 Spanish cloth is at 21*s.*, in 1661 at 23*s.*, in 1662 at 22*s.* 8*d.*, in 1663 at 23*s.*, in 1671 at 19*s.*, in 1674 at 20*s.* Spanish drugget is bought at 3*s.* 6*d.* in 1672. In 1676 Devon cloth costs 6*s.* 3*d.* In 1684 Spanish has fallen in price to 10*s.*, 16*s.*, and 15*s.* a yard, while Dutch is at 26*s.* In 1685 and 1686 drab Spanish is at 12*s.* 6*d.*, grey at 12*s.* Padua or Padoway serge is at 2*s.* in 1686 and 1687, Spanish being at 14*s.* in the latter year. In 1688 drap de Berry is at 11*s.*, Spanish at 11*s.* and 10*s.*

In 1689 Dorset cloth is at 6*s.* In 1699 Padua serge is at 2*s.* 2*d.*, striped Barras at 2*s.*, and Atlas at 70*s.* and 65*s.* the piece. Such are the local names of cloth which have been found, unless Grasett in 1699 be another. I have referred already to the origin of the Eton boys' clothing.

Two facts are derived from the above. First, the best cloth was of foreign origin, none of those which are declared to be English pieces coming near in price to those which are said to be Spanish, French and Dutch. Next, on the whole, good cloth of first quality was dearer than velvet, if we assume, which I do not venture on asserting, that velvet and broad cloth were of the same width. They are not, as a rule, I believe now, but with all allowances, no price of velvet equals that of scarlet cloth in 1645 and 1648, when the article is at 45*s.* the yard, the quantity in each case, bought by different persons, four-and-a half yards, being probably the quantity needed for doublet or coat. No prices like these have been found. I may add that the price of Spanish cloth sensibly declines as time goes on, though very dear cloth of the best quality is not found in the later years.

It is likely that, in these comparatively lower prices, we

may detect the growth of English home manufactures, and in the dropping of distinct names of origin, the anxiety of the dealer not to disparage his goods by candidly stating that they were not exotic. For it is a well-known fact in the experience of modern trade, that fashion and vanity will give more for foreign goods than they will for home produce, and take no trouble to discover whether the quality is equal or better, and that astute traders play on these weaknesses, and even affix or procure to be affixed foreign marks to English goods in order that they may get higher prices from those who cannot detect the deception or do not care to do so. It is probable that the beaux of the Restoration were similarly deceived.

The seventeenth century was emphatically an age of holiday and working-day clothes. I have therefore attempted to extract some information as to the cheapest kinds of clothing which were purchased. Some of these come from the accounts of well-to-do, or even noble persons, and I am sure that these people, when they were not consulting their station, but living in the country on their own estates, dressed as plainly as their tenants did, for many of my entries come from what is clearly the personal expenditure of such persons. I have therefore drawn up a table for what is practically cheap woollen clothing for all classes. It is found to be on an average about 3*s.* 2½*d.* the yard. The average similarly gathered of the dearest kinds of cloth is 20*s.* 1½*d.*, or more than six times as high. We may be sure that the fine dresses of the smart people were only worn on special occasions or in special places.

The names given to woollen goods are very numerous, and many of them are obsolete. Among them the commonest, and one of the most ancient, is frieze. I find it in twenty-nine years. It is generally a cheap product, a coarse common cloth, the price of which ranges between a shilling a yard or less, to two shillings or more. But throughout the whole period there are qualities of cloth quoted under this name which differ greatly from the commoner kinds. Thus in

1592 Lord Pembroke buys some at 8*s.* a yard, a price which I have found nowhere else. In 1611 Shuttleworth buys it at 3*s.* 3*d.* a yard, and at 2*s.* 9*d.* in the same year; in 1620 at 3*s.*, and in 1621 at 3*s.* 2*d.* In 1633 Lord Spencer gives 4*s.* I do not find it again for nearly fifty years, when (1681) it is bought again at 4*s.* In the three years 1688–1690 it is bought at 5*s.* 6*d.* or 6*s.*, and is described as fine by Lord Lovelace, and in 1692 at 5*s.* It is certain that the later article must have been of very different quality from the earlier. In 1617 Shuttleworth buys 'Indies frieze' at 3*s.* 8*d.*

Baize is also a common material. I have found it in twenty-six years. It is also of very various quality and price. It is generally between 2*s.* and 3*s.* a yard, and is occasionally employed for lining. In 1617, Shuttleworth buys Stamel baize at 5*s.* 4*d.* and black baize at 6*s.* the yard. In 1626, scarlet baize is 9*s.* a yard. In 1650, purple baize is 7*s.* a yard, red 4*s.* 3*d.* It is thenceforward generally cheap; but in 1692 purple baize is at 3*s.* 6*d.* In 1592 it is bought at 1*s.* 1*d.* the yard, to cover globes, by All Souls College. It is probable that this article, once the staple manufacture of Colchester, was generally a much lighter and finer stuff than that with which we are now familiar.

Serge is another common fabric. I have found it in twenty-seven years, but it does not occur for nearly the first fifty years. Baize is dearer than frieze, and serge is dearer than baize. The highest price at which I have found it is in 1634, when it is described as scarlet, and costs 7*s.* 6*d.* a yard, all scarlet-dyed goods being dear. In 1666 it is bought for the Winchester boys, to supply their annual suit or gown, and at the usual price, 5*s.*, which Winchester gives for the boys' cloth. In 1647 Master gives 6*s.* a yard for it. These are the highest prices. Serge decidedly falls in price as time passes on. In the earlier period it is between 3*s.* 3*d.* and 4*s.* 10*d.* a yard; in the latter it is between 2*s.* and 3*s.* 4*d.* Serge was used for lining. Serge is sometimes called Padua.

Another common cloth is kersey, carsey, or cursey. It is

as cheap as 1*s.* a yard in 1593. Generally however it is between 2*s.* 4*d.* and 5*s.* a yard. It appears to have been early naturalised in England, and to have been very widely manufactured, especially in the West of England. In 1687 I find it bought at Oxford at 7*s.* a yard, the highest price I have found. There are sixteen years in which this kind of cloth is quoted.

In five years, cloth is purchased for poor persons at a very uniform rate, between 2*s.* and 2*s.* 6*d.* a yard. In 1608 it is called russet, and is bought by the churchwardens of Seale, a Surrey village, near Farnham. Russet is bought at Faversham in 1590 by the ell, the price by the yard being also given, and the distinction between these two measures, under which the ell is 1¼ yd., being specified. This is the only case in which I have found cloth bought by the ell, and the later distinction of ell and yard expressed. In 1616 the Seale Churchwardens again purchase the ordinary amount for a garment, 4½ yards, for a poor man. In 1627 they buy five yards of grey cloth for a poor woman. In 1639 the officials at Stockton buy five yards at 2*s.* 6*d.* for a poor child. These entries are interesting, as they show that cloth purchased by public charity for the poor was not much inferior in quality to that bought by the better-off classes for common wear.

Say, generally I believe used for curtains and covering cushions, is found six times. The price is very uniform, between 2*s.* and 2*s.* 6*d.* the yard. It was mainly manufactured at Norwich. I have found it only in the earlier years of the period. Whenever any colour is given of it, it is always green. It is spoken of as broad, and on one occasion as ell-broad.

Camlet is a rather expensive material. In 1608 it is 10*s.* a yard, in 1615, when it is said to be crimson, it is 9*s.* 6*d.* In 1629 two qualities are bought, at 8*s.* and at 5*s.* 8*d.* In 1631, sea-green Venice camlet is bought, by Lord Spencer at 12*s.* In 1631, Dering gives 6*s.* a yard for hair camlet. In 1655, Master purchases Holland camlet at 10*s.* and 7*s.* for a suit and a cloak, the cheaper article being evidently employed for

the former purpose. In 1658 black camlet costs 10*s.* 6*d.* a yard. It is generally supposed that camlet was manufactured from the hair of the Angora goat, or mohair. But in 1648 and 1649 scarlet mohair is bought by Master at 6*s.* the yard, and in 1649 black mohair by Dering (for Lady Dering's clothing) at 5*s.* 2*d.* Camlet is plainly a more expensive cloth than mohair.

A material called drugget is sometimes found. It must have been a very different article from that which goes by the name at present. It is 3*s.* 6*d.* a yard in 1672, and 6*s.* in 1689 and 1690. In the last two cases it is bought by Lord Lovelace, in the first by Master, and called Spanish. In 1654 the same person buys 17 yards of gold drugget for a suit at 12*s.* a yard. This was it seems a French manufacture, in which the warp contained gold or silver thread.

There still remain other kinds of woollen cloth. In 1589 Lord Pembroke buys frysado at 9*s.* a yard, and in 1617 Shuttleworth fugarello at 4*s.* 4*d.* In 1621 the same person buys Murray shag at 5*s.* In 1627 shag is 2*s.* 5*d.* a yard. In 1627 also, crimson barracan is 5*s.* In 1617 stamell is 17*s.* 6*d.*, in 1627, 11*s.* a yard. In 1650 nectorella is 4*s.* 6*d.*, in 1658 stick bombazene is 3*s.* 2*d.*, in 1660 pondezon is 12*s.*, in 1616 novato is 4*s.*, in 1649 crispiniano 5*s.* In 1650 rash is bought for Lady Dering's gown at 3*s.* 4*d.*, in 1665 it is the name given to the Winchester cloth. In 1608 I find rug at 1*s.* 8*d.*, in 1617 minikin at 2*s.* 6*d.* In 1673 calimanco is 3*s.* 6*d.* a yard, in 1674, 3*s.* 8½*d.* In 1587 bustelin for a waistcoat is 1*s.* 6*d.* a yard. In 1650 tammy is 1*s.* 10*d.* and 2*s.* 6*d.* a yard, the latter being called sea-green Turkey. In 1632 (vol. vi. p. 536) tammy is by error treated as a kind of linen. In 1637, a coarse stuff called broad tike ranny is bought for horsecloth at 2*s.* 1½*d.*

I do not know whether farrenden or farrandine is a stuff for men's or for women's garments. In one case, bought by a young lady at Rockingham, who had an allowance for her clothing, and kept an account of her expenditure, which is

now preserved in the British Museum, it is undoubtedly the latter; in the other two cases it is bought by Master at 7*s.* 4*d.* and 6*s.* 6*d.* the yard. Master was by this time married, and I think, from the other articles with which it is entered, that it was probably a woman's stuff. Parragon in 1661 and 1671, at 2*s.* 2*d.* and 2*s.*, is bought at Horstead Keynes, and striped Barras at London in 1699. Shalloon is found in 1648 at 6*s.* Scarlet shalloon costs 7*s.* in 1697. Scarlet is always the dearest colour.

In quitting the subject of woollen clothing, on the details of which I have not I hope, considering the interest there is in dealing with the early days of this great branch of English industry, been unduly prolix, I may note that the payment by the purchaser of the excise, first imposed by the Parliament and afterwards copied by the King, is recorded for the livery cloth at Eton. In 1644 the College pays 30*s.* the piece; in 1645, 24*s.*; in 1646, 36*s.*; the last entry at the same rate being in 1652.

Cloth garments were lined, the most common material for this being fustian, and the most common kind of fustian being known as Holmes. It is a cheap material, being generally priced between 1*s.* 2*d.* and 1*s.* 6*d.* a yard. Even cheaper than this is Roan fustian at 1*s.* A dearer kind is Milan fustian at 3*s.* 2*d.* and 3*s.* 4*d.* But fustian was also used for clothing by itself. Such is the green fustian bought in 1598 by Shuttleworth, and fustian at Worksop in 1601, at 3*s.* Another kind of lining is morkendoe or mokado, described as tufted, and bought in 1583 and 1587 at 2*s.* the yard. Cotton lining is also found in 1604, at 11*d.* and 6*d.*; in 1608 at 1*s.*, in 1616 at 1*s.* 2*d.*, calico lining in 1610 at 1*s.* 8*d.* In all cases, cotton lining is bought for the clothing of servants and poor persons.

Besides woollen cloths used for linings, others were manufactured for carpets, i.e. table covers and hangings. Such is the broad green cloth at Oxford in 1584, at 6*s.* 2½*d.*, for carpets; the green cloth for the chapel of S. John's College in 1598 at 12*s.* 2*d.*, probably to cover the communion table; the fifty-

four yards of damask at All Souls College in 1604 at 4*s.*; the green damask cushion for the founder's picture at All Souls College in 1609 at 12*s.* 6*d.*; the green cloth for the bursar's apartments at All Souls College in 1611 at 7*s.*; the crimson grogram for pulpit cushions at 8½*d.* bought by the churchwardens of S. Mary Bredman, Canterbury, in 1615; the gingilene and green peropus at 3*s.* 6*d.* for the communion table and cushion at the same church in 1617, with the lining of colour holmes (fustian) at 1*s.* 3*d.*; the broad cloth for the chapel table at 10*s.* 6*d.* bought by All Souls College in 1619; the cloth for the communion table bought by the Seale churchwardens in 1624 at 3*s.* 6*d.* a yard. The Bristol peripetasma, purchased by Magdalen College in 1626, thirty ells in length, at 9*s.* 1*d.*, was probably a hanging; as were also the forty-one yards of blue perpetuana for a chapel screen in King's College at 2*s.* 6*d.* in 1633. Green cloth for the Warden's table, Winchester, costs 11*s.* 6*d.* a yard in 1646. Again, there is Bristol carpeting at 3*s.* in 1657. I conclude that the thirty-six yards of damask, with the silk fringe and lining, bought for the chapel at King's College in 1662, was also of a woollen fabric. Hangings for the poser's chamber at Eton, 33¼ yards, are bought in 1665 at 2*s.* 9*d.* the yard. Damask is bought by Master in 1673, for curtains, at 8*s.*; crimson damask, for the organ-loft at Eton, at 10*s.* 6*d.* in 1692, and for the Provost's and Vice-Provost's stall in the same building (1697) at 20*s.*, though this may have been, from the price, silk. In 1702 the Provost's stall in the same place is supplied with twelve yards of damask at 10*s.* 6*d.*

Flannel does not occur in my earlier volumes, and I have only found it three times in the present, in 1671 at 2*s.*, in 1688, when it was 1*s.* 6*d.* and 2*s.* the yard, and in 1700, when it was 2*s.* 0½*d.* Blankets called fine are found in 1651 and 1652 at 25*s.* the pair, in 1655 at 24*s.*, in 1698 at 35*s.*, 24*s.*, and 16*s.*

Throughout the whole period, stuffs were purchased by the consumer and served out to the men's or women's tailors, a custom which prevailed in country places to recent times.

But there are a few purchases of articles of clothing. In 1653 the new fellows of King's College, Cambridge, buy a 'toga,' for the solitary chorister who had not been superannuated, at 29*s.* 6*d.* As they generally gave 5*s.* a yard for the cloth, it is probable that this toga contained about 5½ yards. But Master is the principal purchaser of ready-made clothing. In 1654 he gives 32*s.* 6*d.* for his servant's livery coat. In 1656 he pays 24*s.* for his servant's stuff suit; and in 1657, 25*s.* In 1658 a serge suit for his servant cost 28*s.* In 1662 he buys an Indian gown for himself at 52*s.* 6*d.*, a stuff riding-cloak for 32*s.* 6*d.* in the same year, and the same article at 35*s.* 6*d.* in 1664. In 1666 a coachman's livery cloak costs him 90*s.* In 1667 an Indian gown cost 41*s.*, and in 1672 he buys a worsted camlet cloak for 27*s.* 6*d.* In 1687 frieze coats are bought in London at 20*s.* 6*d.*

SILK FABRICS. It is not always certain that one can affirm a material to be silk. Some are clearly of this kind, as velvet, satin, sarsnet, taffeta. Sometimes the same word is used for a woollen and a silken fabric, as grogram, when the record occasionally mentions the material. Sometimes a word is used for linen, woollen and silken stuffs, as damask and stamel, when the price is the best guide. One article, now generally I believe woollen, was then plainly silk. This is plush. Some silks, as tabby, lutestring and Mantua, come into the market late.

Scattered over the whole period are eighteen entries of velvet. The price, making allowance for quality, does not greatly change. It was used for the clothing of wealthy men, perhaps of women, and for church purposes. The highest price is that in the latest entry. But I believe that the general average, 23*s.* 11¾*d.*, fairly represents the price at which velvet was procurable through the whole period, though it is somewhat cheaper during the first twenty years, when the entries are most numerous. The purchases made in 1608 on behalf of Prince Henry are at a high price.

Next to velvet in price comes satin. I have found it in

eleven years. The price generally is between 10*s.* a yard and 17*s.*, but in 1629 Lord Spencer gives 20*s.* for white satin. In 1608 green satin is 17*s.* In 1650, when it is at 10*s.*, it is also green, and is bought for Lady Dering's petticoat. In 1630, when it is 17*s.*, it is described as figured. Figured satin is 16*s.* 6*d.* in 1633. In 1649 scarlet satin is 16*s.*, blue wrought satin 13*s.* In 1651 scarlet satin is 16*s.* 8*d.* It seems to have generally been a woman's stuff.

I have found sarsnet in ten years. The price of this article like the last entry is very steady. In the first two entries, early in the period, it is 6*s.* 1*d.* and 6*s.* In the next two, 1610 and 1646, it is 8*s.* In the next, 1649, 9*s.* 4*d.* In the next three, 1650, 1652, 1667, it is 10*s.* In 1668 it is 8*s.* 6*d.* In 1697 white sarsnet is bought in London at 4*s.* 6*d.* the yard.

Taffeta is a commoner silk fabric. I have found it in nineteen years. But the price is so various, that I cannot help thinking that a worsted fabric was known under this name as well as the ordinary silk one, for while the silk fabric is 10*s.* a yard generally or more, I find green and white taffeta bought at Norwich in 1587 at 2*s.* But omitting the consideration of this entry, the price will be found to range between 5*s.* and 20*s.* a yard. In 1584, it is 10*s.*; in 1593, 14*s.*; in 1608, when it is bought for Prince Henry, it is 15*s.* But in 1610 coloured taffeta in London is at 17*s.* In 1613 changeable taffeta is 7*s.* 4*d.* an ell at Cambridge, in 1615 it is bought for King's College chapel at 5*s.*, but in 1617 Shuttleworth gives 15*s.* for the same article. The highest prices are found in 1631. Lord Spencer gives 14*s.* for black, and 20*s.* for rich taffeta. In 1646 Master pays 13*s.* 8*d.*; in 1647, 12*s.*; in 1648, 10*s.* In 1650 white taffeta costs Dering 12*s.*; while in 1667, the last entry, Master buys striped taffeta at 5*s.* In 1623 taffeta is bought for ship stores at 9*s.*, 10*s.*, 10*s.* 6*d.* and 11*s.* the ell; I presume for flags or pennons. Sometimes the article is called taffeta sarsnet.

Tabby, frequently used for lining, is found in thirteen years, but does not occur till near the end of the first half of the

seventeenth century. It is said to be a strong kind of taffeta, but I have only found one entry in which the price of this fabric at all corresponds with that occasionally given for taffeta. In 1650, when taffeta is 12*s.*, French lemon-coloured tabby is 9*s.* Thenceforward it is generally from 7*s.* 6*d.* to 7*s.* But in 1672 it is, under the name of striped tabby, 10*s.* In 1699 three kinds are purchased in London, white at 8*s.*, white and silver at 12*s.*, and black at 18*s.* In 1649 and 1700 I find tabinet at 8*s.* 6*d.* in the former year and at 4*s.* 3*d.* and 4*s.* 2*d.* in the latter.

Grogram silk appears in four years. It is at 11*s.* 6*d.* in 1393, at 10*s.* 6*d.* in 1615, at 17*s.* 4*d.* in 1620, and at 9*s.* 6*d.* and 12*s.* 6*d.* in 1631. I should think that the application of this name to a silk stuff ceased to be common at an early period.

Ras de Cypre and Drap de Berry are I presume silk fabrics: the former is priced at 8*s.* in 1649, the latter at 14*s.* in 1649 and at 11*s.* in 1688. Satanetto is at 2*s.* 6*d.* in 1686; flower silk at 8*s.* 6*d.* in 1686; light silk is at 9*s.* in 1655; silk for breeches at 10*s.* in 1687. Stamell, the price of which on this occasion seems to suggest silk, is at 17*s.* 6*d.* in 1617.

Plush, which seems to have been a silken fabric, is first found in 1629, when it is bought by Lord Spencer at 23*s.* a yard. But next year the same person buys it at 13*s.* 6*d.* and 11*s.*, the cheaper being green. In 1631 he again buys it at 10*s.* In 1633 Lord Spencer gives 12*s.* a yard for what is called 'three plush to line,' 23*s.* for crimson plush, and 12*s.* again for other plush. In 1687 crimson plush is bought in London at 7*s.*, and here I suspect that the material may have been woollen, if not entirely at least in part.

There are a few entries of damask which appear to be silken fabrics. Such appear to be the mixed damask and crimson damask which King's College purchased in 1615, apparently for an altar cloth. Again, in 1662, damask is bought with the same object by the same corporation at 16*s.* 4*d.*, and with it 32½ ounces of silk fringe at 2*s.* 1½*d.* In

1699 white figured damask is quoted in a London account at 8*s.*, and in 1700 rich tissue damask is at 12*s.* 6*d.*

Two other kinds of silk remain, lutestring and Mantua. The former of these was originally a French product, but was naturalised in England towards the close of the century, was protected by a prohibitive duty, while the manufacturers of the article were incorporated into a company, with a term during which they received a monopoly. But before their term was out, the fashion changed, the company spent its capital, and the manufacture was abandoned. I find it in 1650 at 13*s.*, in 1667 at 5*s.* (when it is said to be striped), in 1701 at 6*s.* 6*d.* Mantua does not occur till the end of the period. I find it at 7*s.* 6*d.* and 7*s.* 9*d.* in 1700, the former being described as yellow, the latter as black and white. In 1701 white and black and white are at 6*s.* 6*d.*, in 1702 striped at 7*s.* 6*d.*, plain at 7*s.* All the purchases of Mantua are made in London.

I find shagareen at 4*s.* a yard in 1699, and two articles sold by the piece, Atlas at 70*s.* and 65*s.*, blue striped cotnege at 35*s.* the piece. I cannot guess what these materials are: I only know that they are purchases made for one or more of Johnson's daughters. Nothing is I imagine more difficult to define than the character and materials of obsolete fabrics.

In 1605 Eton College furnished their College chapel with a new altar-cloth. They bought 16¾ yards of purple velvet, two yards of Watchet damask, i.e. I suppose watered silk, 15½ yards of fustian lining, an ounce of Venice gold and an ounce of silver (by which I suppose is meant gold and silver thread), half an ounce of gold perle at 6*s.*, a quarter of an ounce of perle at 6*s.*, and another quarter of an ounce at 5*s.* 8*d.* The whole cost was £17 9*s*,

In 1613 one Robins, one of the fellows of Eton College, bequeathed a sum of money to be laid out in the purchase of tapestry, and the College expended on this object £73. It was long an ornament of some part of the College buildings, and I heard, when I was investigating the Eton accounts, that this tapestry, having become worn and moth-eaten, had

been destroyed during living memory. But I did not learn where it had been generally hung.

In 1617 the churchwardens of S. Mary Bredman of Canterbury fitted up their table with a new cloth of taffeta and two kinds of peropus. The whole expense was 29*s.* 5¾*d.*

In 1628 King's College provided itself with a purple velvet communion cloth, with silk and gold fringe, at a cost of £27 6*s.* 8*d.*, and in 1632 purchased other cloths to the amount of £60. These charges were incurred probably at the instance of Laud, who became archbishop in 1633. In 1634 they set up a damask covering at the east of the church at a cost of £73 7*s.* 6*d.*, and next year, probably to save these rich fabrics, they gave 30*s.* for a broad-cloth carpet for the communion table. It is most likely that these articles were disposed of by the Puritan fellows, when they superseded the older occupants.

In 1662 the College purchased a new altar-cloth. It consisted of 38 yards of damask at 16*s.* 4*d.*, 32½ ounces of silk fringe at 2*s.* 1½*d.*, and 32 yards of coloured linen for lining at 10*d.* The cost was therefore £35 15*s.* 6¾*d.* In 1683 the fellows provide what they call a peplus sericus for the chapel at a cost of 69*s.* This was also I conclude an altar-cloth. I have not included any other entries of church or altar ornaments, though some will certainly be found in the list of Sundry Articles to be commented on hereafter.

In 1629 Lord Spencer buys gold lace at 5*s.* 6*d.* an ounce, in 1630 silver plate bone-lace at 4*s.* 6*d.* the ounce, and in 1631 gold and silver plate lace at 5*s.* 4*d.* In 1634 Caryll of Harting buys silver lace at 5*s.* 6*d.* In 1649 Dering buys parchment lace at 5*s.* 8*d.* the yard, and silver lace at 4*s.* 6*d.* the ounce, or 4*s.* 7*d.* the yard, from which it appears that the yard and ounce in this case at least are nearly identical. Lace for trimming linen has been commented on in the chapter before this.

During the period comprised in these volumes there is no doubt that the manufacturer of textile fabrics of all kinds had

made great progress, and that what at the beginning of the time was a trivial part of English trade, had by the end of it become a matter of immediate significance and great hope. It is clear that the saying of Bishop Burnet, that the English climate was peculiarly adapted to the spinning and weaving of linen and woollen yarn, was the summary of an experience which had become very generally familiar. The original home of all linen and woollen fabrics, as far as England was an agent in the production of them, was the Eastern Counties, especially Norfolk. The selection of the locality was accidental, and was due to the intimate trade relations which subsisted, perhaps beyond historical evidence, between the Low Countries and Eastern England. Even after the trade had begun to migrate, the relations of Norfolk and Suffolk with Flanders and the rest of the States, which were gradually being accumulated by the House of Burgundy, were kept up and made intimate by the business ties which it was the interest and endeavour of men like Fastolfe and Cromwell to maintain in the fifteenth century. And as constantly happens, the manufacturing activity of the Eastern Counties kept their minds open to those speculative novelties in faith and practice which the followers of Wiklif first inculcated, and the sectaries of the Reformation, whose true home was the same Eastern Counties, clung to amid incessant persecution.

The hint given in the grocers' accounts as to the origin of some of the cloth which the guild purchased shows that at the beginning of the fifteenth century the manufacture of cloth was migrating westwards. The evidence supplied from the various Acts of Parliament for defining and regulating the trade shows how rapidly cloth manufactures spread in the West and the North. I believe that during the period treated in these volumes, very little of the finest products could be obtained in English manufactories. But there was a wide market for middling and cheap products, and the North of England, peculiarly adapted to the spinning and weaving of

woollens, rapidly became the seat of thriving industries, in which the small weaver, till the advent of new appliances, was able to hold his own. Even now in Lancashire and Yorkshire the manner in which the weavers' houses were built, in which the longest possible amount of light was secured by windows running along the whole of the upper storeys, is enduring evidence of how widely distributed the industry was.

The manufacture of linen, then as time went on, of cotton and of woollen goods, was attempted with far more success than the manufacture of silks. For silk goods, a clear sky and abundant sunshine are more important than a moist atmosphere and an equable temperature. Except under protective and almost prohibitive regulations, I do not think that England would have ever developed a successful silk manufacture, and I am fairly sure that, in the absence of such adventitious aids, silk manufactures in England have declined. But the nation is no loser, for one of the best faculties which the policy of free trade developes is that of discovering the industries for which the conditions of the country are most favourable, all the circumstances of the situation being included in these conditions.

That the migration of woollen manufactures from the East, South, Midland, and West of England to the North is the result of climatic and geological conditions combined is obvious. But there were other causes at work. The southern parts of England fell behind in the struggle. The evil was aggravated by accident, for when the cloth manufactures of the West were already shaken, they were in many cases prostrated by the foolish judgement of Lord Kenyon, under which manufacturing machines were rated to the relief of the poor, a judgement of which the more prudent North declined to take advantage.

The facts collected in the foregoing pages, and as far as some of them go, systematised at the conclusion of these chapters, are I believe quite sufficient to indicate what was the cost of linen goods to the rich and the middle classes, and

what was the cost of woollen goods to the rich, the middle classes, and the poor. There is also, I am convinced, sufficient to show what the charge was at which the better-off people in English society could procure those luxuries which fashion required or demanded or enforced.

It must not be forgotten, however, that in many places spinning and weaving were a bye-product in English industry, and that they were generally and assiduously practised. The spinning wheel and the weaver's frame were I am certain common all over rural England not only in the seventeenth century, but during a considerable part of the eighteenth also. Home-spun was the clothing of many peasants and workmen, and in the intrepretation of the manner in which wages were exchanged for the labourer's needs, we must take into account that not a little of his clothing was the work of himself and his family after his agricultural or other labours were ended.

The tables appended to this chapter give the annual prices of cloth from the purchases for the Cambridge choristers, the Eton boys, the Eton servants, and the Winchester boys. They also give a fourth column of such prices as can be found for the commoner kinds of clothing. In these tables, the first, fourth, and fifth are by the dozen yards, the second and third by the piece of thirty-three yards for the boys and twenty-seven for the servants. The decennial averages include also the price of S. John's livery cloth by the dozen, of the best cloth by the yard, and of velvet by the yard.

TEXTILE FABRICS.—AVERAGES.

	Cambridge choristers, piece or dozen.	Eton boys, piece.	Eton servants, piece.	Common cloth, dozen.	Cloth, Winchester boys, dozen.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1583–4	41 6	128 11	200 0	16 9	.....
1584–5	.....	130 5	186 0	11 6	.....
1585–6	41 8½	124 7	170 4	32 0	.....
1586–7	44 6	138 10½	160 0	.....	.....
1587–8	.....	121 11	153 4	16 0	.....
1588–9	.....	120 6	170 0	27 0	.....
1589–90	52 0	135 0	190 0	.....	.....
1590–1	50 0	140 0	190 0	26 0	.....
1591–2	56 0	136 11	190 0	16 0	.....
1592–3	56 0	137 7½	190 0	25 6	.....
1593–4	56 0	146 0	188 0	15 0	.....
1594–5	56 0	145 7	190 0	24 0	.....
1595–6	56 0	155 10	200 0	25 0	.....
1596–7	56 0	186 8	200 0	24 0	.....
1597–8	56 0	131 8	186 8	20 0	.....
1598–9	56 0	136 11	192 0	33 6	.....
1599–1600	56 0	130 11	188 0	17 4	.....
1600–1	56 0	157 6	189 8	26 4	.....
1601–2	57 6	55 0[1]	177 0	27 0	.....
1602–3	65 0	131 8	200 0	22 8	.....
1603–4	90 0	120 0	200 0	34 0	.....
1604–5	.....	178 0	210 0	17 9	.....
1605–6	64 0	163 7	220 0	13 0	.....
1606–7	63 0	158 4	195 0	.....	.....
1607–8	64 0	134 6	190 0	.....	.....
1608–9	62 0	137 4	190 0	26 0	.....
1609–10	63 0	126 9	200 0	17 0	.....
1610–1	61 0	141 6	200 0	28 0	.....
1611–2	61 0	140 9	205 0	30 0	.....
1612–3	60 0	145 0	220 0	27 8¼	.....

[1] Northern dozens; by the ordinary rate, 151*s.* 3*d.*

	Cambridge choristers, piece or dozen.	Eton boys, piece.	Eton servants, piece.	Common cloth, dozen.	Cloth, Winchester boys, dozen.
	s. d.	s. d.	s. d.	s. d.	s. d.
1613-4	60 0	163 0	210 6	.....	.....
1614-5	61 0	211 6	215 0	.....	.....
1615-6	60 0	215 6	230 0	.....	.....
1616-7	.....	215 0	230 0	23 4	.....
1617-8	61 0	224 2	230 0	23 6	.....
1618-9	61 0	221 11	230 0	18 9	.....
1619-20	.....	220 0	230 0	29 0	.....
1620-1	50 0	220 0	230 0	32 0	.....
1621-2	50 0	220 0	228 4½	33 0	.....
1622-3	50 0	220 0	230 0	.....	.....
1623-4	52 0	211 9	230 0	.....	.....
1624-5	70 0	211 9	.....	.....	.....
1625-6	66 0	220 0	230 0	30 0	.....
1626-7	66 0	206 3	230 0	28 0	.....
1627-8	60 0	220 0	230 0	25 0	.....
1628-9	60 0	220 0	230 0	.....	.....
1629-30	.....	220 0	230 0	.....	.....
1630-1	72 0	214 6	230 0	.....	.....
1631-2	.....	220 0	230 0	15 0	.....
1632-3	60 0	220 0	230 0	34 0	.....
1633-4	54 0	220 0	230 0	48 0	.....
1634-5	66 0	220 0	230 0	34 0	.....
1635-6	66 0	220 0	230 0	.....	.....
1636-7	66 0	220 0	230 0	.....	.....
1637-8	66 0	220 0	230 0	.....	.....
1638-9	66 0	220 0	230 0	.....	.....
1639-40	66 0	220 0	230 0	36 3	.....
1640-1	66 0	220 0	230 0	.....	.....
1641-2	63 0	.....	.....	.....	.....
1642-3	.....	.....	.....	.....	.....
1643-4	.....	.....	.....	.....	.....
1644-5	76 0	225 6	235 0	.....	60 0
1645-6	81 0	237 1	240 0	.....	60 0
1646-7	78 0	231 0	240 0	.....	60 0

	Cambridge choristers, piece or dozen.	Eton boys, piece.	Eton servants, piece.	Common cloth, dozen.	Cloth, Winchester boys, dozen.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1647–8	96 0	220 0	260 0	.....	60 0
1648–9	96 0	231 0	260 0	.....	60 0
1649–50	78 0	220 0	250 0	28 0	58 9
1650–1	84 0	220 0	250 0	28 0	60 0
1651–2	.....	220 0	250 0	.....	60 0
1652–3	84 0	231 0	250 0	.....	60 0
1653–4	.....	220 0	250 0	46 0	60 0
1654–5	.....	231 0	250 0	.....	60 0
1655–6	.....	214 6	250 0	.....	60 0
1656–7	.....	214 6	250 0	.....	60 0
1657–8	.....	214 6	250 0	.....	60 0
1658–9	.....	214 6	250 0	.....	60 0
1659–60	.....	214 6	250 0	39 0	60 0
1660–1	72 0	209 0	250 0	42 0	60 0
1661–2	64 0	214 6	250 0	36 0	60 0
1662–3	66 0	198 0	250 0	.....	60 0
1663–4	70 0	198 0	250 0	40 0	60 0
1664–5	69 0	198 0	250 0	36 0	60 0
1665–6	70 0	198 0	250 0	.....	60 0
1666–7	69 0	198 0	250 0	.....	60 0
1667–8	69 0	198 0	240 0	34 0	60 0
1668–9	69 0	198 0	250 0	36 0	60 0
1669–70	69 0	198 0	250 0	.....	60 0
1670–1	68 0	201 3	226 0	.....	60 0
1671–2	69 0	198 0	238 0	.....	60 0
1672–3	66 0	198 0	250 0	.....	60 0
1673–4	66 0	176 0	250 0	.....	60 0
1674–5	66 0	180 0	250 0	44 6	60 0
1675–6	66 0	180 0	250 0	32 0	60 0
1676–7	66 0	166 4½	250 0	.....	60 0
1677–8	.....	189 0	250 0	.....	60 0
1678–9	49 0	189 0	250 0	.....	60 0
1679–80	52 0	189 0	250 0	.....	60 0
1680–1	58 0	189 0	250 0	.....	60 0

	Cambridge choristers, piece or dozen.	Eton boys, piece.	Eton servants, piece.	Common cloth, dozen.	Cloth, Winchester boys, dozen.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1681–2	57 0	189 0	250 0	48 0	60 0
1682–3	61 0	189 0	250 0	.....	60 0
1683–4	60 0	189 0	250 0	.....	66 0
1684–5	60 0	189 0	250 0	24 0	60 0
1685–6	60 0	189 0	250 0	33 0	60 0
1686–7	60 0	189 0	250 0	24 9	60 0
1687–8	60 0	167 9	250 0	24 0	.....
1688–9	60 0	189 0	250 0	32 0	60 0
1689–90	60 0	189 0	250 0	30 0	60 0
1690–1	60 0	189 0	.....	18 0	60 0
1691–2	60 0	189 0	250 0	.....	60 0
1692–3	60 0	189 0	250 0	42 0	60 0
1693–4	60 0	189 0	250 0	.....	.....
1694–5	60 0	189 0	250 0	.....	60 0
1695–6	60 0	189 0	250 0	.....	60 0
1696–7	60 0	189 0	250 0	.....	.....
1697–8	60 0	189 0	250 0	.....	60 0
1698–9	60 0	189 0	250 0	.....	60 0
1699–1700	60 0	189 0	250 0	25 8	60 0
1700–1	60 0	189 0	250 0	.....	60 0
1701–2	60 0	189 0	250 0	.....	60 0
1702–3	60 0	189 0	250 0	.....	60 0

Decennial Averages.

	Cambridge choristers, piece or dozen.	Eton boys, piece.	Eton servants, piece.	Common cloth, dozen.	Cloth, Winchester boys, dozen.	S. John's livery cloth, dozen.	Best cloth, yard.	Velvet, yard.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1583–1592	48 9	131 $5\frac{3}{4}$	179 $11\frac{1}{2}$	21 7	.....	.....	9 0	20 $6\frac{1}{4}$
1593–1602	57 $0\frac{1}{2}$	147 $4\frac{3}{4}$	193 $1\frac{1}{2}$	23 $5\frac{3}{4}$	.....	.....	11 5	20 8
1603–1612	65 4	144 6	203 0	24 2	.....	144 0	.....	23 $1\frac{1}{2}$
1613–1622	56 $7\frac{1}{2}$	213 $1\frac{1}{4}$	226 $4\frac{3}{4}$	29 11	.....	144 0	16 7	22 9
1623–1632	63 3	216 5	230 0	26 5	.....	144 0	24 5	.....
1633–1642	64 4	220 0	230 0	39 5	.....	.....	37 6	22 0
1643–1652	84 $1\frac{1}{2}$	226 3	246 4	28 0	59 $10\frac{1}{4}$	.....	24 $2\frac{1}{4}$	.....
1653–1662	67 4	214 $5\frac{1}{2}$	250 0	39 0	60 0	144 0	23 $8\frac{1}{4}$	27 8
1663–1672	68 $9\frac{1}{2}$	198 4	250 0	36 6	60 0	144 0	19 10	25 0
1673–1682	60 $1\frac{1}{4}$	183 $7\frac{1}{2}$	250 0	41 2	60 0	142 $7\frac{1}{2}$	18 8	24 0
1683–1692	60 0	189 0	250 0	28 $5\frac{1}{2}$	60 8	132 0	17 0	.....
1693–1702	60 0	189 0	250 0	25 8	60 0	144 0	19 0	30 0
Gen. Average	62 $11\frac{3}{4}$	189 $4\frac{1}{2}$	231 7	38 $4\frac{1}{2}$	60 1	143 7	20 $1\frac{1}{2}$	23 $11\frac{3}{4}$

CHAPTER XXII.

ON THE PRICE OF PAPER ETC., PARCHMENT ETC., AND ROPE.

PAPER, either by the ream or by the quire, and very commonly by both, is found in eighty-five of the years contained within the present period. The record is unbroken from 1583 till 1640, and the information is most frequently supplied by Eton. The explanation appears to be, that the accounts of this College, rough entries and final account alike, are written on paper. Besides, when Savile was Provost (1596–1622), a good deal of printing, especially of the Greek fathers, was carried on at Eton. It is possible then that Eton made purchases of paper for printing as well as for domestic accounts and occasional correspondence. My record is broken and imperfect in the later years, and this for the reason so often alleged, that the accountant gives the price without quantity.

The paper priced in the averages is of ordinary quality, and although the information which I have discovered is not copious, it will be found that the price is fairly uniform, though the localities which register it are distant. Thus in 1602, Gawthorp in Lancashire, Oxford, Worksop, and Wormleighton give the same price by the quire. In an earlier year, 1593, I find the same price at London, Gawthorp, Oxford, and Worksop. Cambridge supplies me with very little information.

I conclude, partly from the price, occasionally from actual statements made, that the paper purchased was generally a small quarto size, whether it was purchased by quire or ream. It would appear also, from some entries, that the ream contained something more than twelve quires, for the difference between

the price of a dozen quires and a ream is not very marked. At the same time, the breaking of bulk is generally indicated by a higher price of the less quantity, and it is not improbable that the ream may have been about sixteen or eighteen quires.

In or before 1588, according to a poem preserved in the Bodleian Library and published under this date, one Spilman, a German who was employed as a jeweller by Elizabeth, set up a paper-mill at Dartford. The author of the poem, who cannot help making an obvious pun on the good German's name, tells us that he gave employment to at least six hundred persons, and suggests that Spilman's venture was the first that was successful, though he admits that an attempt had been made by Thirlby, bishop of Ely, to introduce the industry into the country more than a generation before, for that when he was sent as ambassador to Charles V he had engaged a German, one Remigius, to accompany him to England for the purpose. The author of the poem states that the water needed for cleansing and pulping the rags was brought in pipes to the mill, and describes the process by which the pulp was manufactured and drained on a wire frame. The greater part of the poem is a eulogy on an invention which aids the student and the scholar, and was advantageously naturalised in England. The Dartford manufactory had I believe a very continued existence.

The paper of the sixteenth and seventeenth centuries is very good. It was not indeed bleached to the whiteness of modern paper, and is perhaps discoloured by time, but the material is excellent, and the product is strong and tough. It exists of course in great quantities both in books and in correspondence. It is plain too that the same material was used for writing and printing. Paper-dealers transacted business with the University Printing Press at Oxford, invoices of whose sales to the Press authorities are preserved among Hearne's papers in the Rawlinson collection. Between 1670 and 1677, during which eight years the bills are preserved, these traders frequently state that the paper on which

they are writing is a sample of that which they wish to dispose of to the University authorities. It was these intimations which led me to infer that the ordinary paper was a small quarto size, and indeed most of the correspondence of the time is on such paper.

Up to 1602, all my entries are apparently of one character, paper being generally 5*s.* a ream, and 4*d.* a quire. But in this year Lord Spencer buys, beyond several quires of ordinary paper, one quire of what the account calls 'singing paper,' at 8*d.*, by which I believe is meant paper ruled for copying music. This is the price at which New College, Oxford, buys ruled paper in the years 1603 and 1606, though in 1613 Eton buys 'ruled paper for music' at $6\frac{8}{8}d.$ the quire. Up to 1649 Eton buys by the ream, and from 1650 always by the quire, though plainly the quality of the material is very different from that of the earlier purchases. In 1583, while buying by the ream at 4*s.* 4*d.*, Eton for once buys also by the quire at 3*d.* From 1584 to 1619 the price by the ream is invariably 5*s.* at Eton; from 1620 to 1645 as invariably 5*s.* 4*d.*; from 1646 to 1648, after which it occurs to buy by the ream, it is 7*s.*

In 1604 Corpus Christi College, Oxford, buys 'large paper' at 1*s.* 4*d.* the quire, other paper at 3*d.* and 7*d.*, and a ream at the Eton price. In 1622, royal paper at 40*s.* the ream and 1*d.* the sheet is found, the paper being said to be ruled, and quires of ordinary quality being still procurable at 4*d.* In 1624 I find gilt paper, a little dearer than ordinary. In 1627 royal paper in London is at 11*d.* the quire. In 1631 Caryll buys large white at 8*d.*, white at 6*d.*, gilt at 9*d.*; and in the same year Venice-cut in London is at 10*s.* the ream, and large gilt at 10*d.* the quire. But in the next year ordinary paper is at the old price, 4*d.*, though large white is at double this price, as before. In 1633 Caryll buys white royal at 10*d.* the quire, and gilt at the same price. After 1636 ordinary paper is a little dearer.

In 1636 royal ruled is 3*s.* 2*d.* the quire, and in 1651 a little over 2*s.* $4\frac{3}{4}d.$ the dozen sheets, both purchases being made

by New College. These are the latest examples of ruled paper. But there is a kind called large, bought by Eton at 1*s.* a ream when ordinary purchases are not above 6*d.*; and another called royal, at 24*s.* the ream in London, under the year 1654; at 40*s.* in 1666 at Cambridge, where it is said to be bought for the bursar's book, that is the small folio used for engrossing the annual account, and at 25*s.* and 30*s.* at London in 1674. There is also a purchase of twelve reams of what is called almanack paper in London in 1677, the purchase being made by the Oxford Press, which had a qualified or regulated monopoly for the sale of these annual issues.

As I have said, in the years 1670–1677, inclusive, the same Press bought printing paper in London. In the first year the kinds are not described; in other years they are designated as pot paper, Lombard, Genoa, crown and fine crown, demy and Duran demy. The dealer from whom the Press generally bought was one Carbonel. The paper was generally despatched by barge up the course of the Thames, now made navigable to Oxford. The books printed during this time by the University are of course on these different kinds of paper.

There is a slight rise in the price of paper (if we assume that the size and quality are the same in late years with what they were in the earlier years,) towards the conclusion of the period, though the rise is by no means so marked as it is in other articles. In collecting the averages at which paper was sold, I have omitted the higher-priced entries on which I have commented above, and only taken those which are obviously of ordinary use. It is however only in the last decade, in which two entries by the quire and one by the ream are found, that the advance is marked. I conclude that by the middle of the seventeenth century, though there are entries which seem to indicate foreign produce, paper-making had become a settled industry in England, and though the price was by no means low, some improvements in the manufacture kept the price from rising to the rate at which other products were raised. It is stated that much paper was imported from

France, and that the refugees of 1685 greatly improved the home manufacture.

Purchases of books were not made very numerously in the latter part of the sixteenth and in the seventeenth centuries. But one Oxford College, Corpus Christi, was distinguished for frequently buying books, and I conclude had from the beginning a special fund for the purpose. They ceased indeed to buy during the reaction under Mary Tudor, and while they were under Laud's influence. Generally it seems Colleges relied on benefactors, especially among the members of their own foundation. Thus I have little doubt that the noble Caxtons which Eton College possesses were put there by Savile, for I have found no notes of purchases in the annual accounts.

I have not pretended to collect all the entries of books bought by Corpus Christi College and other societies, but have merely taken some illustrations which throw light on the studies of the College, or on local needs. In 1585 Corpus Christi College paid 27*s.* for a Hebrew lexicon, and in the same year New College bought Stephens' edition of Diodorus Siculus for 10*s.* In 1586, a Canterbury parish gave 41*s.* for a Church Bible; and in 1587, 4*s.* 6*d.* for a Book of Common Prayer. In the same year Corpus Christi College paid 50*s.* for the Theatrum Vitae Humanae, Magdalen College 70*s.* for the Summa Aquinatis, and 32*s.* for two volumes of Bellarmine. In 1592 Corpus Christi College bought Ursini tractatus, et Zanchii Miscellanea for 11*s.*, Zanchius de attributis et operibus for 18*s.*, and Zonaras cum aliis for 10*s.* In 1593 Lord Pembroke bought two Greek grammars at 2*s.* each, and in 1594 Eton a Church Bible for 30*s.* In 1595 Corpus Christi College gives 10*s.* for Joseph Scaliger de Emendatione Temporum. In 1596 a Chapel Bible cost Oriel College 15*s.* 6*d.* In the same year Corpus Christi College gave 36*s.* 6*d.* for Averroes. In 1597 it pays 5*s.* for the Theorics of Copernicus. In 1598 the Canterbury parish gives 4*s.* for a Prayer-book, and in 1599 3*s.* 4*d.* for a book of Statutes. In 1600 a Psalter costs Oriel College 2*s.* 2*d.*

In 1603 Corpus Christi College buys the Bibliotheca Patrum for £6 10*s.*, Hugo Cardinalis for £7 10*s.*, Salmeron in Evangelia for £4, Maldonatus in Evangelia for 20*s.*, Gregorii de Valentia Controversia for 26*s.* 8*d.*, Ejusdem de Summa Aquinatis for £4, and Arca Noae for £2. In the next year a Prayer-book costs the Canterbury parish 9*s.*, and Corpus Christi College again buys: five parts of Zanchius for 17*s.* 4*d.*, Calvin on Samuel 6*s.* 6*d.*, Bezae opuscula 17*s.*, Dr. Rainolds de Idololatria Ecclesiae Romanae 3*s.* 6*d.*, Ejusdem thesis 1*s.* 2*d.*, and Zanchius de Operibus Redemptionis 9*s.* 6*d.* In 1605 the Antiquitates Britanniae, folio, costs 17*s.*, and Curtius in Novum Testamentum 18*s.* In 1611 it gives 53*s.* for a great Bible, and 20*s.* for Photius.

In 1621 Shuttleworth buys Dodoneus' Herbal and Selden's Titles of Honour for 6*s.* and 5*s.*, Corpus Christi College gives 7*s.* for Viscount S. Alban's book on Henry VII, and in 1624 £3 6*s.* 8*d.* for a copy (four vols.) of Purchas' Pilgrims. In 1631 it buys for £2 8*s.* 6*d.* a copy of the Statutes of the Land at large, which is always to be in the President's lodgings, and in 1633 a copy of the University Statutes for £3 10*s.* In 1635 it pays 52*s.* for a great Chapel Bible.

In 1654 Master gives 2*s.* 6*d.* for Hartlib's second book of husbandry, 9*s.* for Dalton's Justice of the Peace, and 7*s.* for Baxter's Saint's Rest. In 1655 Corpus Christi College buys the Amsterdam Talmud in 10 vols. for £5 6*s.*, and the Novus Atlas Sinensis for £2 12*s.* In 1662–3 Master gives in February 1*s.* for a book called Hudibras, and in May 1*s.* for the second part. In 1663 King's College, Cambridge, buys the Architectura Militaris of de Dögen for the Duke of York, and De Laet's Descriptio Americae for the King, the first bound in Turkey, the second in velvet, the two costing £3 and £2 12*s.* 8*d.* Both are probably in the British Museum. In the same year Master buys the second part of Hudibras again for 2*s.* 6*d.*, and Virgil travestied for 1*s.* In 1674 All Souls College buys Loggan's cuts for £5 8*s.* 6*d.* In 1679, at Chiswick, Dr. Littleton's Dictionary costs 11*s.*

In 1689 S. John's College, Cambridge, gives £10 15*s.* for Loggan's book on Cambridge. But in 1690 Eton pays only £4 for the two volumes of the two Universities. It is probable that the higher price given by the Cambridge College included a present to the author, and that the payment does not therefore represent the author's or the bookseller's charge for the volume.

BOOK CHAINS. In vol. iv. p. 603 I commented on the price of such book chains as were found in the period included within those volumes. It may be convenient to take the notices which are found within the present period. I find them for twenty-six years, chiefly from the Oxford Colleges, especially New College, All Souls, Corpus Christi, and Magdalen, all of which societies during the seventeenth century were active in founding and developing libraries.

The price of book chains varies considerably, from over 9*s.* a dozen, the highest price, to 3*s.* 2*d.*, the lowest. But by far the commonest charge is from 4*s.* to 5*s.* From one of the entries it appears that they were procured from Birmingham (called Bromingham in the account), and from another that they were purchased by the yard or ell. The price too given on this occasion (1632), 5*s.* by the dozen ells, 4*s.* by the dozen yards, when taken in connexion with the ordinary price of these articles, implies that the chains were a yard or ell in length. The quality and character of these chains can be easily verified by an examination of those which still exist in old libraries.

The custom of chaining books to the shelves appears to have come to an end at the outbreak of the war between the Parliament and Charles. There is only one entry, with three prices of such chains, after this period. This is in 1666, by New College. But while two of these quotations, at 4*s.* 6*d.* and 5*s.* 2*d.* the dozen, may very well be book chains, the third, at 62*s.* 6*d.* the dozen, is certainly not. There is evidence of considerable activity in the publication of books after the Restoration, and it is clear that wealth among certain classes of society increased largely during the latter half of the seven-

teenth century. The precautions therefore which librarians took at an earlier period seemed superfluous now, and the custom of chaining books was abandoned.

In 1655 I have a solitary entry of brass clasps by the dozen at 1*s*. This finish to a volume was generally, it would seem, supplied by the bookbinder. Finally, in 1699, S. John's College, Cambridge, procured at a cost of £14 12*s*. 6*d*. a copper plate of the College arms, and 9000 impressions of the plate, some of the total cost being due to the charge of pasting the book plate in all the volumes.

PARCHMENT AND VELLUM. Parchment is found for forty-four years only, vellum for seven. The former is bought by the skin or by the roll. I have taken as usual the dozen as a convenient measure. In vol. iv. p. 594 it is stated that the roll contained five dozen. This is generally an Oxford measure in earlier times, and is much more frequent than in the present period, when parchment is found in a few places only, and only twice, in 1589 at Eton and in 1661 at Winchester, by the roll. It is plain that in those localities it could not have been so large a number of skins as it was in other places and at earlier dates. At Winchester it appears to be the same as the dozen. At Eton it should be three or four dozen.

It seems plain, from the comparative scantiness of these entries, that the ancient custom of engrossing leases and other deeds in the College office was passing away, and retained only by corporations which were tenacious of traditional customs. If this be the case, it is natural to conclude that it was now becoming the practice of landowners to entrust the duty of preparing deeds to their legal advisers. These deeds were numerously prepared. The vast mass of old leases which New College lately ejected from its muniment room, and the Bodleian Library fortunately rescued from destruction, range in order of time from the latter end of Elizabeth's reign to that of Anne. There are several hundreds of them, and the analysis or calendar of their contents, a work of no little time and labour, will throw considerable light on the relations

of landlord and tenant during the most critical epoch of English agriculture. But had these documents been prepared in the College office, some entry would have been made of the cost to which the corporation was put in procuring the material on which they were engrossed. The accounts which have been examined for the materials of these volumes are derived from the records of eight corporations, each of which possessed large quantities of real estate, and the annual issue of deeds from the treasury or bursary of each corporation must have been very large. The deeds were generally engrossed on roughly squared skins, but occasionally the parchment was cut into sheets and ruled. The quality of the parchment is inferior to that manufactured at an earlier period, when great care was taken in shaving or scraping the product.

Between the earlier and later entries of this article, none having been found for the last twenty years contained in these volumes, there is a rise in price, though not a considerable one. This comparatively slight elevation is I conclude to be accounted for by the diminished use of the material. Legal instruments were still engrossed on parchment, but many documents which by habit or tradition or necessity had formerly been drafted on the old material were now drawn upon paper, especially agreements, even for the conveyance of freeholds. The principal use of the sheepskin after the wool had been removed was for the manufacture of parchment, though some was employed for common gloves, as we shall see when we come to deal with the Sundries in the next chapter. The discontinuance therefore, even in a slight degree, of the use of this material would check that rise in price by which most other articles are marked, for there is no reason to believe that the other cause which arrests elevation in price, improvements cheapening the process of production, had been discovered or adopted, if indeed they were not discouraged by the diminished demand for the article.

No intimation is given of the purpose for which vellum was

purchased. It is possible that some was employed for addresses. The use of it in early times was for service books, the toughness of the material suggesting the convenience. But there is no reason to believe that it was at all employed for religious or choir purposes after the use of printing became general.

ROPE, CORDAGE, AND LINE. Rope is constantly purchased during the period before me for church and chapel belfries, and the rise in the cost of the article is a clear indication of the general course which prices took during the seventeenth century. It is ordinarily bought by the pound, but occasionally by the stone or hundredweight. I have no doubt, had the Oxford accounts been better preserved, or had been illustrated by fuller details, that the consumption of New and Magdalen Colleges, Oxford, both of which have insulated bell-towers, would have supplied me with annual entries of this article. King's College, Cambridge, was also to have had an insulated bell-tower near the west door of the great chapel, but this part of the design was never carried out, and its purchases are therefore of the rope for the single bell which serves as the summons to the chapel service. Numerous entries of the price of rope also come from Eton and Winchester. On one occasion rope is bought by the yard, and forms part of the carriage harness[1].

The price of this, the commonest kind of rope, does not vary much for the first thirty years, and would scarcely have varied at all but for an unusually cheap purchase made by New College in 1586. Still all the change is upwards. But after the first decade of the seventeenth century the price goes up rapidly, though, unlike general experience, the price of the decade 1643–1652 is less than that of the divisions preceding and following it, the price of this article not partaking in the temporary rise which has been so frequently noted. Rope reaches its maximum price in the ninth decade, 1673–1682, though the cost is not much less during the next twenty

[1] If one can infer from this entry, about 2½ lbs. went to the yard.

years. In the last it falls, a fact which has been frequently noticed in other articles.

In early years the rope which is used for ringing bells was also employed for such clocks as were in existence. But in course of time, a finer and stronger article, sometimes called spun line, was used for timepieces and for small bells. This finer and more tightly twisted cord is not expressly mentioned in a period earlier than this, though it appears that there were differences of quality and price in ship stores of rope and line, which indicate that a considerable number of varieties were known and distinguished.

The first entry of the kind is white line bought at Rochester by the hundred, at *7d.* a pound, or more than double the price of rope. The next time in which this higher-priced line is bought is in 1600, when it is again at *7d.*, or double the average price of rope. In 1629 it is at *10d.* the pound; in 1631 at an average of *11s. 4d.* the dozen pounds, or more than double the price of rope. In 1633 it is at *1s.*, and we are told that it was bought for the Saint's bell, or little bell. From 1637 it is described as clock-rope or clock-line. In 1649 it is called pulley-line, but the common name is clock-line.

The highest price at which this clock-line is purchased is in 1656 and 1663, when it costs *1s. 6d.* a pound. This is again double the price of rope at Eton, and more than double that at Winchester. And here it may be observed that within those places which are under the influence of London prices the cost of rope is very uniform, and that it is generally cheaper in more remote places.

Entries of cordage from the various dockyards are numerous but interrupted. Cordage is generally the same price as rope, but is priced by the cwt. or ton. It was, it seems, bought as it came from the rope-maker's hands, and was subsequently tarred in the ship-yards, the quantity of tar which cordage took by the ton being calculated by the officials. Cordage however varies very considerably in quality and even in price year by year. The highest prices which I have found are at

Southampton in 1668, and Portsmouth in 1672, the entry in the latter case being that it was of 'all kinds.' The quantities bought, especially at Chatham, are occasionally very large.

The Government did not always buy rope. It occasionally purchased hemp, but at very various prices. In 1647 it gave £25 the ton; in 1664 Riga hemp is £8, Russia £10 the ton. In 1672 Rhine hemp is bought at £35. In 1686 and 1687 the article costs £18 and £20. Most of these entries are from the papers of Pepys, the well-known Secretary to the Admiralty under Charles and James. In 1698 it cost 20*s*. Pepys informs us that rope-makers got from 1*s*. 3*d*. to 1*s*. 4*d*. a day in the dockyards, and the rates of payment are for the winter of 1663.

Since writing the above I have discovered, by searching in the Gough catalogue in the Bodleian Library, a manuscript volume of the accounts (apparently rendered to Parliament in consideration of sums voted for the repair of Westminster Abbey under the superintendence of Sir Christopher Wren) between the years 1697–1702 inclusive, and onwards. Among the particulars of expenditure, copied apparently from the tradesmen's bills of the time, and each receipted in the book by the tradesman who supplies goods and labour, are certain entries of rope.

From this record it is clear that at least three kinds of rope were used in trade. There was a quality of from 8*d*. to 6*d*. a pound, which seems to have been used when the strongest article was needed. There is another at 5*d*., which is used for cranes; and a third, which is employed for binding scaffold-poles, at from 3*d*. to 4½*d*. the lb. The parties responsible for the building bought it, and the rise in the price of this inferior rope seems to me to indicate that it was not found very safe, as the prices of the better kinds decline.

The account is audited by Wren and the Dean and Chapter. The money granted by Parliament was not large (some of it came from the coal dues), and was, it is clear, carefully spent. The volume, Gough West MSS. 1, is quite worthy the attention

of those who are interested in the architectural history of the Abbey.

Between the years 1592 and 1692 there are frequent entries of bell-ropes, generally bought for the occasion, in the Oriel College accounts, which are otherwise very meagre. The price begins at 10*d.*, and is generally 1*s.* The average of nineteen entries is nearly 1*s.* 2½*d.*

Paper.—Dozen Quires and Reams.

	s.	*d.*		*s.*	*d.*		*s.*	*d.*		*s.*	*d.*
1583	3	8	1600	5	o R	1620	5	4 R	1644	5	o
	3	8 R[1]	1601	4	o	1621	4	o	1645	6	o
1584	4	o		5	o R		5	4 R		5	4 R
	5	o R	1602	4	o	1622	4	o	1646	6	o
1585	5	o R		5	o R		5	4		7	o R
1586	4	o	1603	3	11	1623	4	8	1647	7	o R
	4	o R		5	o R	1624	6	o[2]	1648	5	o
1587	4	o	1604	4	4		5	4 R		7	o R
	5	o R		5	o R	1625	5	4 R	1649	5	o
1588	4	o	1605	4	o	1626	5	4 R	1650	6	o[2]
	5	o R		5	o R	1627	5	9	1654	6	o
1589	5	o R	1606	4	o		5	4 R	1669	6	o
1590	3	6		5	o R	1628	5	4 R	1670	5	6 R
	5	o R	1607	5	o R	1629	5	4 R	1671	5	$7\frac{1}{2}$ R
1591	4	o	1608	4	o	1630	5	4 R	1672	6	7
	5	o R		5	o R	1631	6	o	1674	7	$4\frac{1}{2}$ R
1592	4	o	1609	4	o		5	4 R	1675	5	$6\frac{1}{2}$ R
	5	o R		5	o R	1632	4	o	1676	5	6 R
1593	4	o	1610	5	o R		5	4 R	1677	3	o
	5	o R	1611	5	o R	1633	4	o		5	3 R
1594	4	o	1612	5	o R		5	5 R	1682	6	o
	5	o R	1613	5	o R	1634	5	4 R	1684	6	o
1595	4	o	1614	4	o	1635	5	4 R	1685	6	o
	5	o R		5	o R	1636	5	o	1686	5	6
1596	4	o	1615	5	o R		5	4 R	1687	6	o
	5	o R	1616	4	4	1637	5	o	1688	4	9
1597	4	o		5	o R		5	4 R	1690	4	o
	5	o R	1617	4	o	1638	5	o	1692	6	o
1598	3	$8\frac{1}{2}$		5	o R		5	4 R	1696	11	o R
	5	o R	1618	4	o	1639	5	o	1698	8	o
1599	4	6		5	o R		5	4 R	1700	8	o
	5	o R	1619	4	o	1640	5	o			
1600	4	o		5	o R		5	4 R			

[1] R. means ream.

[2] gilt.

Decennial Averages.

	Dozen quires.	Reams.		Dozen quires.	Reams.
	s. *d.*	*s.* *d.*		*s.* *d.*	*s.* *d.*
1583–1592	3 10¾	4 9¼	1653–1662	6 0	.....
1593–1602	4 0¼	5 0	1663–1672	6 0	5 10¾
1603–1612	4 0½	5 0	1673–1682	4 6	5 11
1613–1622	4 0¼	5 1	1683–1692	5 5½	.....
1623–1632	5 6¼	5 3¼	1693–1702	8 0	11 0
1633–1642	4 10	5 4			
1643–1652	5 6	6 7	General Average	5 1¾	5 11¾

Parchment Skin.—Dozen.

	s. *d.*		*s.* *d.*		*s.* *d.*		*s.* *d.*
1585	7 0	1601	6 0	1624	22 0 V	1660	10 0
1588	6 0		14 0 V	1629	6 0		28 0 V
1589	18 0 R[1]	1602	7 0	1631	20 0 V	1661	12 0 R
1590	6 0		20 0 V	1632	6 0	1663	12 0
1592	8 8½	1603	9 0	1644	7 0	1665	9 0
1593	8 0	1604	6 0	1645	6 0	1667	10 9
	20 0 V	1605	10 0	1646	7 0	1668	9 0
1594	8 6	1607	6 0	1648	6 0	1672	10 0
1595	7 6	1608	6 0	1649	14 0	1673	10 0
1596	9 0	1609	7 0	1651	8 0	1677	8 6
1598	15 0 V[1]	1610	4 6	1656	9 0	1682	6 6
1599	6 0	1622	6 0[2]	1657	9 0		
1600	6 0	1624	6 0	1658	9 0		

Decennial Averages.

	s. *d.*		*s.* *d.*
1583—1592	6 11	1643—1652	8 2
1593—1602	7 3	1653—1662	9 3
1603—1612	6 11¼	1663—1672	10 1½
1613—1622	6 0	1673—1682	8 4
1623—1632	6 0		
1633—1642	.....	Gen. Average	7 8

[1] R. means roll; V. vellum. [2] Sheets ruled.

Rope.—Dozen.

	s.	d.		s.	d.		s.	d.		s.	d.
1583	3	0	1617	4	0	1643	12	0 L	1669	7	6
1584	3	6	1618	4	0	1644	6	0	1670	7	6
1586	2	4	1619	4	0		12	0 L	1671	6	0
1587	3	0	1621	4	4		32	0 C		16	0 L
	28	0 C		23	0 C	1645	5	6	1672	7	4
1588	3	0	1622	4	3		12	0		48	0 C
1589	28	0 C		20	6 C		29	6 C	1673	9	0
1591	4	0	1623	5	0	1646	5	6	1674	8	2
1592	3	0		26	0 C		12	0 L	1675	8	0
1594	3	0	1624	4	0		32	0 C	1677	6	0
	7	0 W[1]	1625	3	10½	1647	5	0	1678	7	0
1595	3	0		25	0 C		32	0 C	1679	7	0
	28	0 C	1626	4	3	1648	5	6	1680	7	0
1596	3	0		28	9 C		32	0 C	1681	7	0
	32	6 C	1627	4	3	1649	5	6	1682	6	0
1597	3	0		30	0 C		16	0 L	1683	6	0
	28	0 C	1628	4	0		29	0 C		24	0 C
1598	3	0		29	0 C	1650	6	0		16	0 L
1599	3	0	1629	10	0 L[1]	1651	5	6	1684	6	0
	23	9 C	1630	5	0	1653	6	0	1685	9	0
1600	3	6	1631	5	6	1654	6	0	1686	9	0
	7	6 W		11	4 L	1655	40	0 C	1688	6	0
	27	4 C	1632	5	2	1656	18	0 L	1689	6	0
1601	3	6	1633	12	0 L	1657	8	0	1690	7	0
1602	3	6	1634	5	6	1659	6	8	1691	9	0
1603	3	3	1635	4	8	1660	6	4	1692	7	0
1604	3	6¾		12	0 L	1661	7	6	1694	9	0
1605	3	0	1636	5	6	1662	7	10	1695	7	0
1606	3	9		12	0 L	1663	8	0	1696	6	6
1607	3	6	1637	5	9¾		18	0 L	1697	8	0
1610	3	0		12	0 L	1664	6	6		14	0 L
1611	3	6	1638	8	0	1665	9	0	1698	6	6
1612	3	1½	1639	6	3	1666	9	0		20	0 C
1614	3	3	1640	5	1½		44	0 C	1699	6	6
1615	5	0	1642	30	0 C	1667	7	6	1701	6	0
	30	0 C	1643	6	0	1668	7	1½	1702	6	0

[1] L. clock-line, dozen; C. cordage, cwt.; W. white line, dozen.

Decennial Averages.

	Rope, dozen.	Cordage, cwt.	Line, dozen.
	s. *d.*	*s.* *d.*	*s.* *d.*
1583—1592	3 1½	28 0	.....
1593—1602	3 2	27 11	7 0
1603—1612	3 4	.....	.....
1613—1622	4 1	24 6	.....
1623—1632	4 6¾	27 9	11 4
1633—1642	5 10	30 0	12 0
1643—1652	5 7¼	31 1	12 0
1653—1662	6 11	40 0	18 0
1663—1672	7 6½	46 0	17 0
1673—1682	7 3	.....	.....
1683—1692	7 2½	24 0	16 0
1693—1702	7 0	20 0	14 0
General Average	5 6	29 11	13 5

CHAPTER XXIII.

LABOUR AND WAGES.

THE rates of wages paid to labour, under the machinery of the quarter sessions assessments, taken in connection with the cost at which the necessaries of life could be procured, are of profound interest to the student of social and economical history. I do not purpose in the present chapter to interpret the wages of labour by the price of the common necessaries of life. This topic will be most conveniently handled after I have dealt with the prices comprised in the hundred and twenty years 1583–1702 inclusive and an attempt is made to compare and systematise the evidence. At present I shall merely deal with the history of wages in the period before me, and especially with those forces which the employers of labour, through the agency of parliament and the machinery of the quarter sessions, put into motion with a view to effecting that victory over labour which for more than two centuries they had vainly attempted to achieve.

Two acts of government had effectually delivered the English labourers into the hands of their employers and left them helpless. These were Henry's crime of base money, and the confiscation of the guild lands, projected by Henry and carried out immediately after his death by the guardians of his son. Every one knows that the forced issue of base money inflicts far more serious loss on those who live by wages than on any other class. The guild lands were really the benefit societies of the middle ages, i.e. were the principal

means by which the sick and destitute were maintained. On the ground that they were given for superstitious uses, they were confiscated, and employed to assist in enriching the adventurers who were about the young King's throne. Upon these impoverished and disinherited peasants, and upon these artisans, who had not, like the old London companies, contrived to get an exemption from the statute, was induced the Act of 5 Elizabeth, cap. 4, under which the magistrates in quarter sessions were empowered to fix the rate of wages for husbandmen and artificers, were directed to enforce their assessment by fine and imprisonment, and to compel under a severe pecuniary penalty all artisans to pass through a period of apprenticeship. The penalty on infringing this part of the statute was 40*s.* a month, or nearly double the wages which it will be seen ordinary artisans earned by a month's labour.

This celebrated Act, the effect of which was so considerable in the history of English labour, was passed in 1562. The fact then belongs to a period earlier than is comprised in these volumes, but the effect of the law is made so conspicuous in the period before me, that it is expedient to give a summary of its provisions, of the machinery by which it was to be enforced, and of the penalties which it threatened.

The first clause repeals all previously enacted statutes, thirty-four in number, since 23 Edw. III; the second enacts that servants in certain employments should be hired by the year; the third, that every single person under thirty years of age, not having 40*s.* a year of his (or her) own and not being otherwise employed, shall be compellable to serve as a yearly servant, in the craft in which he (or she) has been brought up; the fourth, that such a person is not to be dismissed except upon some cause allowed by two justices of the peace, nor at the end of the year without a quarter's warning; the fifth, that all persons between the ages of fifteen and sixty, *not otherwise employed or apprenticed, are compellable to serve in husbandry*; the sixth, that masters unduly dismissing servants are liable to a penalty of 40*s.*, while servants unlawfully

quitting employment shall be imprisoned; the seventh, that servants are not to leave a city or parish without a testimonial, and that those who do so without it shall be imprisoned, or if they held a forged one, should be whipped; the eighth, that if a master takes a servant without a testimonial, he shall be fined £5.

By the ninth clause, the assessors are to define the hours of work, and 1*d.* an hour is to be deducted for every default[1]; by the tenth, any who struck work were made liable to a month's imprisonment and £5 fine; by the eleventh, the rates of wages were to be fixed by the justices in quarter sessions, certified in Chancery, approved by the Privy Council, and proclaimed by the sheriff[2]; by the twelfth, a penalty of £10 is put on every justice who is absent from the rating sessions; by the thirteenth, penalties are put, on the giver of higher wages of ten days' imprisonment and £5 fine, on the receiver of twenty-one days' imprisonment, the contract being declared void; by the fourteenth, a workman assaulting a master is to be imprisoned for not less than a year; by the fifteenth, artificers are compellable to work in harvest, or be punished with the stocks; and by the sixteenth, migration for harvest-work is permitted to the labourer, from his own county to any other.

By the seventeenth, women between twelve and forty years of age are compellable, if single, to work by the year, week or day; by the eighteenth, certain persons may take apprentices in husbandry; by the nineteenth, householders in towns may take apprentices for seven years' terms; by the twentieth, merchants are not to take apprentices from parents, unless they have at least 40*s.* a-year freehold estate; by the twenty-first, householders may take two apprentices, being children of artificers; by the twenty-second, certain merchants are to take no apprentice except from parents who have a freehold estate of at least £3 annual value; by the twenty-third, artisans may

[1] The day is never less than eight hours. The rates of payment will be found below.

[2] This clause supplies the reason for the insertion of the Rutland and Lancashire assessments among the list of Elizabeth's proclamations.

take apprentices from parents who have no land; by the twenty-fourth, the apprenticeship shall be for seven full years, under a penalty of 40*s.* a month for any time short of this term; by the twenty-fifth, woollen cloth weavers are to take apprentices from those parents only who have a freehold of at least £3 per annum; by the twenty-sixth, one journeyman must be hired when the master has three apprentices, and for every other apprentice another journeyman, under a penalty of £10; by the twenty-eighth, persons refusing to be apprenticed are to be imprisoned.

By the thirtieth clause, the justices are directed to enquire periodically into the due execution of the Act; by the thirty-first, the justices are to have 5*s.* a day (the wages of county members), to be paid out of fines and forfeitures, during such time as they are enforcing the Act; by the thirty-second, the penalties are to be divided between the queen and the informer. Then follow some less important particulars, the only remaining clause of importance being the thirty-ninth, under which runaways are to be imprisoned.

By the 39 Eliz. cap. 12, the Act is extended to weavers, the justices in divisions of shires are made competent to regulate and assess wages in their divisions, the rates are to be proclaimed by the sheriff, and the necessity of certifying the rates in Chancery is abrogated, provision being taken that they should be preserved by the *custos Rotulorum* in each county. The Act is continued by 43 Eliz. cap. 9, and by 1 Jac. cap. 6. It remained in force with little modification (though others, restraining workmen from combination and punishing offenders with great severity, were passed from time to time) up to 1825, when the repeal of those acts was effected, chiefly by the agency of the late Mr. Joseph Hume.

It is not quite clear whether the Act of 1562 was intended to repeal 7 Hen. VIII, cap. 5, under which the City of London was excepted from the various Statutes of Labourers. In one particular that Act was repealed, for by it all penalties on masters giving more than the statutable wages were expressly

remitted, as they had been tacitly by the omission of the clauses in 11 Henry VII, cap. 22. It is probable that the City was exempted, for most of the London artificers were included in those companies whose property has been appropriated in later times by people who have no relation whatever to those handicraftsmen and trades who gave the funds, and expected that the craft or trade would be permanently benefited by them.

In vol. iv. p. 120, I reprinted from Elizabeth's proclamations the assessment which, in pursuance of this statute, the Rutland magistrates issued in June, 1563. This assessment, printed by the Queen's order and circulated, was intended to be the type of similar regulations to be applied to all counties in England, with such differences as customary and local prices might suggest. Thus there can be little doubt that general prices were lower in the North of England than they were in the South, and it will be found that the Northern assessors fixed the wages of labour at lower rates than the Southern magistrates did. It should be added, that there were in existence statutes which inflicted death penalties on what we now call trade unions, and that those who administered the law were beginning to make what they called a conspiracy a matter of exceedingly elastic and dangerous interpretation.

The legislature had long been accustomed to fix prices, and had entrusted the function of such a regulation to officials and corporations. Henry the Eighth and his successors often fixed the price of meat, wine, beer, and many similar commodities. The Assise of Bread and Beer is so ancient a statute that it is undated. It did not fix the price of these articles, but it fixed the price at which the baker and brewer should vend what they produced. Even at that early age it was seen that no human power could fix the price at which wheat and malt should be sold, and the statute gives a schedule of what the weight and the price of the loaf or barrel should be, as the price of wheat or malt rose or fell. They who were greatly interested in determining the rates at

which labour should be remunerated, had no mind to put on themselves and their rent-paying tenants such sums for agricultural produce as would effectually debar any rise in rent. It may be added too, that the classes who were well above the labourers, and had securely become the masters of the future, were all (as Stafford's pamphlet, published at about the commencement of the period before me, testifies) severely pressed by the unaccountable and inconvenient rise in prices which followed on the restoration of the currency. So they concluded, as they have concluded ever since, that the farmer and the peasant must be stinted, in order that the resources of the landowner should suffer no loss.

At a time too, when there was much open country, on which fowling was practised, when most peasants had their plots of ground, and there were considerable and valuable commonable rights of pasture, the spoliation of which was only just begun, the regulation of money wages might not seem so great a hardship. It is conceivable, in brief, that working for money wages was a bye-industry, and that in general the labour of the peasant was occupied about his holding, and other incidental but important industries. This seems to be confirmed by the Act of 1589, which prescribes that no new cottage should be built unless four acres of land were annexed to it. The Act seems to have been obeyed, for Arthur Young complains of it as a hindrance to good husbandry, nearly two centuries after it became law[1]. There is consequently some apology which can be made for those who devised 5 Eliz. cap. 4, though it is perfectly certain that it effected the degradation of the English peasant. But there is no apology for those who, when the result became manifest and the beggary of the peasant became a social problem of the most serious kind, continued to enforce its provisions with severity.

Only a few of these quarter sessions assessments survive, though I have searched for them in all directions. It is said that they were issued yearly, and in all counties, by which is

[1] It was repealed in 1775.

probably meant that the same assessment was constantly republished. They had only an ephemeral interest, and perhaps it is more strange that any have survived, than it is that so many have been lost. When Ruggles wrote his work on the poor in 1793, he refers to the ninth of the series of assessments which are printed in the Appendix to the sixth volume of this work, pp. 685–700, as probably a solitary specimen of this kind of quarter sessions work. Sir Frederic Eden increased the number to eight, and I have been able to make them up to eleven. Of these, four are of the sixteenth, and the rest of the seventeenth century. These four are of the Northern counties, Chester (two), York (East Riding), and Lancashire. The others are of Rutland, Gloucestershire (two), Essex (two), Suffolk, and Warwickshire. The earliest is dated in 1592, the latest in 1684. They have been printed generally in order of time, but in two cases the information from the same place, Chester and Gloucestershire, is conveniently grouped.

The schedules of the first two are unfortunately mutilated. Eden obtained them from the Harleian MSS., and in each case the scale of wages without food is lost, and in one, the earliest, the later parts of the scale are also missing. But though this part of the scale is unrecoverable, there is no difficulty in suggesting what the figures in the last column on the right hand side should be, for it is plain that the Lancashire scale of 1595 was so nearly on the lines of the Chester assessment, that the former was probably almost an exact copy of the latter. This Lancashire assessment, No. IV in the series, has been extracted by me from the great volume of the proclamations of Elizabeth, one of the choicest historical treasures of the Bodleian Library. If my reader will add to the wages with meat and drink, 4*d.* a day for ordinary male labour, 3*d.* for women's labour, and 5*d.* for harvest labour, I am quite confident that he will practically be able to restore the last column. All the documents are printed in vol. vi.

Generally, but not invariably, these assessments were made on the most convenient day which could be found after Easter.

This was in accordance with the language and purposes of the statute, which my reader will find to have been almost minutely recited in the Lancashire assessment. The reason for this rule was obvious. The purpose of Elizabeth's counsellors, on paper at least, was that the justices in drawing up their scales should take into consideration what was the price of food, especially of wheat (the crop of which, collected in the previous autumn, was estimated with sufficient precision by the middle of April), and also of clothing and other necessaries. The Queen and her counsellors in point of fact suggested that, in drawing up these schedules of wages and enforcing the maximum rate with severe penalties, the justices should follow on the lines of the famous and familiar Assise of Bread and Beer, and that therefore wages should rise and fall with the price of the necessaries of life. We shall soon see to what extent the quarter sessions assessment followed this suggestion.

Now these assessments are of the following dates and localities :—

		Wheat.	Malt.	Oatmeal.
		s. d.	*s. d.*	*s. d.*
Chester	April 24, 1591 ...	22 6	20 0	38 8
York, East Riding	April 26, 1593 ...	18 8	12 0	22 10
Chester	April, 1594 ...	20 0	11 4	28 0
Lancashire (printed	Aug. 30)[1], 1595 ...	40 0	21 4	38 8
Rutland	April 28, 1610 ...	28 0	15 4	.....
Gloucestershire...	(no date) 1632 ...	38 8	21 4	74 0
Essex...	April 8, 1651 ...	46 0	23 0	65 7
Gloucestershire...	(no date) 1655 ...	20 0	16 0	39 8
Essex...	Easter, 1661 ...	42 8	22 8	53 6
Suffolk	April 24, 1682 ...	33 4	17 6	59 5
Warwickshire ...	April 8, 1684 ...	36 0	19 0	62 0

The wheat, malt, and oatmeal prices have been taken from cheap markets, in order that the assessment may be interpreted from the most favourable aspect of the justices' equity. It should also be added, that corn, especially in dear years, was a little lower in price in the North than it was in the other

[1] This is the date at which the assessment is issued by the Queen's printer. It was of course drawn up some time before, probably, as Easter was late in 1595 (April 20), at the end of April.

parts of England, as my reader may verify by examining Houghton's Northern averages. In cheap years however it appears that wheat was dearer in the North than it was in the South. It seems also that certain of the necessaries of life were cheaper in the North, perhaps because the habits of the people were more simple, or even more coarse. The customary standard of living, as every economist knows, has a good deal to do with the customary rate of wages. I mention this that no one may charge me with exaggerating the case against the justices.

Now in my Six Centuries of Labour and Wages (p. 389) I pointed out that, under the Act of 1495, the wages permitted to be given to labourers and artisans (the year being certainly a cheap one) would have allowed an agricultural labourer to purchase three quarters of wheat, three of malt, and two of oatmeal with fifteen weeks' labour, and that an artisan could have achieved the same result with ten weeks' labour[1]. I took these three quantities as representing in the most concrete and convenient form what was the purchasing power of wages at that time. I assumed that the peasant and the artisan work 300 days in the year. It is quite possible that they did not get so much employment, perhaps that they worked more days, or on certain occasions increased their earnings by bye-employments, by the labour of their wives, their sons, and their daughters. But in calculations such as I am making, provided you take what it may be conceived the workman could not do without, the comparison is made more obvious, if the fewest and simplest factors are taken. In a later chapter I shall hope to show how the workman did probably spend his earnings. In the present I am only seeking to point out how far, under the quarter sessions scales, he could procure certain objects, viz. a fixed quantity of wheat, malt and meal, with a year's labour.

[1] Arthur Young, Eastern Tour, vol. i. p. 466, considers a quarter of wheat and two of rye an excessive amount for a labourer with his wife and two children by the year.

Under the 1591 assessment (for I am assuming the interpretation which I suggest), the best artisan was to get, finding himself, from 8*d.* to 6*d.* a day. The Chester authorities (it is for the city, not the county, that they are framing the scale) say very little about agricultural labour, but it seems obvious that they intend for the best conceivable labourer in husbandry, the bailiff, the same wages as the artisan, and for ordinary labourers 4*d.*, the employer of course having the discretion of taking men by the year or the day as it suited him. The ordinary artisan would therefore get 6*d.* a day for his work, the ordinary peasant 4*d.* For 300 days then the former would earn £7 10*s.*, the latter £5. The Chester magistrates offer for the year in such cases, the man finding himself, £5 and £3 10*s.* The difference perhaps indicates the precariousness of day-work. But in order to put the fairest construction on the situation, I will assume that the higher rate represents the married, the lower the unmarried peasant, and that the day-labourer may reasonably expect work for 300 days in the year.

Now on turning to the schedule of prices, it will be seen that the quantity of provisions which in 1495 an artisan could procure with ten, and the peasant with fifteen weeks' labour, would be secured by the Chester labourers at a cost of £9 4*s.* 10*d.* It would therefore cost the artisan, at 3*s.* a week (in the judgment of those who 'respected the plenty or scarcity of the time'), sixty-four weeks and more, under the Cheshire scale, to get what a century before he could have got for ten weeks' labour. The labourer in husbandry would have had to give over one hundred and two weeks.

Under the Yorkshire scale of 1593, the artisan gets an average of 9*d.*, the peasant of 6*d.* These county justices are more generous than the Chester citizens. Under their scale the peasant gets £7 10*s.* for 300 days' labour, the artisan £11 5*s.* The provisions, for at Lady Day they are all a good deal cheaper, now cost £6 6*s.* 8*d.* In this year the

peasant earns his store by a little over forty-two weeks' labour, the artisan with a little more than twenty-eight.

The Lancashire assessment of 1595 begins with an elaborate recitation of the Act, which the justices were commanded to administer, and the workmen to obey, upon the pains and forfeitures appointed by the said statute. The scale is exact and comprehensive. It divides the year into two portions—five months, from the first of May to the first of October, during which time it permits the higher wages, the lower scale prevailing over the other seven months. The highest rate allowed to the labourer in husbandry during the shorter period is 6*d.* a day without meat and drink, and during the longer 5*d.* Saturdays and the eves of holidays are to be half-days. Mowers of hay or corn are to have in harvest-time 8*d.*, their attendants 4*d.* During hay-making a woman is to have 3*d.*, during harvest 4*d.* Master artisans, masons, carpenters, joiners etc., able to be entrusted with work, are to have 8*d.*, others working under them 6*d.*, their apprentices 5*d.* A pair of sawyers are to have 1*s.* 4*d.* together, or, if they work by the piece, 1*s.* 6*d.* for every hundred of board sawn.

Now the price of wheat about Easter 1595 was 40*s.* the quarter, of malt 21*s.* 4*d.*, of oatmeal 38*s.* 8*d.*, the price of the last being for once lower than that of wheat, though it is generally a good deal higher. It may be added that the harvests of 1595, 1596, and 1597 were worse than in any previous experience, and that the Government was seriously alarmed. The proclamation book contains several instruments in which the dearth is set down to the arts of speculators and forestallers, and the penalties of the statute thereafter provided are invoked against these reputed malefactors.

Again, taking 300 as the working days of the year, the wages of the best-paid servant in husbandry, under the Lancashire scale, would be 135*s.* 5*d.*, from which must be deducted 9*s.* 10*d.* for the Saturday half-day, leaving 125*s.* 7*d.* as the full year's wages, and taking no account of the eves of

holidays. The full wages of the best-paid artisan are £10, and deducting the Saturday's half-pay, £9 3*s.* 4*d.* But the stock of provisions before referred to would have cost in the spring of 1595, when the Lancashire magistrates were interpreting 'the plenty or scarcity of the time and other circumstances necessarily to be considered,' no less than 261*s.* 4*d.*, and would therefore have required more than two years' labour from the peasant, and over seventy-one weeks' work from the artisan. Just a hundred years before, these necessaries could be procured by the artisan with ten weeks' labour, by the peasant with fifteen. Hartlib expressly states that in years when the harvest was bad the people starved, and it is difficult to see how they could have possibly subsisted on the justices' scale. I may admit that I have never registered such low wages as these. But I have little information from Lancashire, and even Shuttleworth at Gawthorp, from whose accounts I have made some extracts, pays better wages than his fellow justices prescribe.

The next assessment is for Rutlandshire, dated April 28, 1610. The source of the table is the eleventh volume of the Archæologia. In this scale the wages of the husbandman are to be 7*d.* daily from Easter to Michaelmas, and 6*d.* from Michaelmas to Easter. Mowing is to be 10*d.*, haymaking and reaping 8*d.* Women's labour is only priced for the hay and corn harvests, for the former at 5*d.*, the latter at 6*d.* As regards artisans, the chiefs of the craft, as chief joiners, master sawyers, free masons, are to have from Easter to Michaelmas 1*s.* a day, from Michaelmas to Easter generally 8*d.*, in a few cases 10*d.* 'A master carpenter who is able to draw his plot,' i. e. plan the woodwork of a house, 'and to be a master of work over others,' is to have 1*s.* 2*d.* for the summer half of the year, and 10*d.* during the shorter days. The contributor of this schedule to the Archæologia appears to have examined the high constable's accounts of hiring between 1626 and 1634, and states that this scale was still in operation. If my reader will refer to vol. iv. p. 120, he will find that this assessment does

not differ materially from that drawn up in the same county in June 1563, nearly half a century before.

In the spring of 1610 the price of wheat was 28*s.*, of malt 15*s.* 4*d.* This is one of the few years in which I have not found the price of oatmeal between September and September. But shortly after Michaelmas 1610 the price is 32*s.*, and I am quite convinced that it was not less than this in the spring, for on the whole oats are dear in the early part of the year. Now allowing a month for harvest, and taking the highest rate (10*d.*) for the days in it, the peasant's yearly wages would be £8 8*s.* 9*d.*, and the artisan's £12 10*s.* But at the prices given above, the aggregate cost of the provisions of which certain quantities have been taken for purposes of comparison would be £9 14*s.* The Rutlandshire peasant could not procure them with much less than fifty-eight weeks' labour, while the artisan could acquire them with a little less than thirty-nine weeks' employment. With few exceptions, the cost of the labourer's board is reckoned at 4*d.* a day, of the woman's at 3*d.*

The next assessment (which I found myself in Rawlinson MSS. C. 358) is said to be in the handwriting of one Oliver Acton. This person has left a considerable number of papers in a volume, chiefly on what we should call social questions. His object in the paper from which I make these extracts is to compare the scales of 1632 with that of 1655, the authority in each case being the quarter sessions assessments. The month in which the assessments are made is not given, but it was no doubt as usual in the spring.

The year 1632 was rather a dear year. The cost of wheat at Lady Day was 38*s.* 8*d.*, of malt 21*s.* 4*d.*, and oatmeal is at the great price of 74*s.* the quarter. The wages of the day-labourer are 8*d.* a day; but another class, called taskers, get 8*d.* in the summer and 6*d.* in the winter half of the year. Reapers get 1*s.* a day. Chief carpenters and free masons have 1*s.*, slaters and tilers 1*s.* 2*d.* Now at the above prices the aggregate cost of the provisions is £16 8*s.*, the wages of the peasant taking the highest rate, and giving a month of harvest wages,

are £10 8*s*. 4*d*.; and of the artisan, at 1*s*. 1*d*. a day, £16 5*s*. The peasant would have to give nearly eighty weeks' work to get his store, the artisan his whole year's labour and a little more.

The year 1655, with which Mr. Acton compares 1632, was a decidedly cheap year. At Lady Day, wheat was only 20*s*. a quarter, malt 16*s*., and oatmeal 39*s*. 8*d*. The day-labourer now gets 10*d*., the tasker 10*d*. in summer, 8*d*. in winter, the head carpenter and free mason, 1*s*. 8*d*., while the slater and tiler are kept at the wages of twenty-three years ago. The harvest-work is at 1*s*. 4*d*. the day. At the above prices the aggregate cost of the provisions is now £9 7*s*. 4*d*. The peasant's wages, allowing a month for harvest as before, are now £13 2*s*. 6*d*., and he could procure his store, if he worked 300 days, with a little less than thirty-five weeks' labour. The chief carpenter and mason under these improved conditions could earn £25 a year, the tiler and slater £17 10*s*. The former could procure them with a little less than nineteen weeks' labour, the latter with a little less than thirty.

I now go to the assessment made at Chelmsford in Essex, on April 8, 1651. The original is a contemporary fly sheet, the Bodleian reference of which is Gough, Essex, 31. In this the year is divided into two portions, from March 16 to September 15, and from September 16 to March 15. By some error the justices refer to 'the statute 29 Eliz.' The particulars it will be seen are very copious and exhaustive, for the county is manufacturing as well as agricultural.

In summer the labourer's wages are 1*s*. 2*d*. the day, in winter 1*s*. Mowers are paid at 1*s*. 6*d*. the day, reapers at 1*s*. 10*d*., women reapers getting 1*s*. 2*d*. The master mason or carpenter gets 1*s*. 6*d*. a day in summer, 1*s*. 4*d*. in winter. A master shipwright and a master caulker get 2*s*. and 1*s*. 4*d*. The year is a dear one, the dearest of all those for which assessments have been found. Wheat is 46*s*., malt 23*s*., oatmeal 65*s*. 7*d*. a quarter. The cost of the store of provisions is therefore £16 18*s*. 2*d*. The wages of a master carpenter and mason,

working for fifty weeks, amount to £21 5*s.*; of an agricultural labourer, £16 17*s.*, including a month's harvest work. The stock would be bought by the artisan with the expenditure of a little less than forty weeks' labour, but the peasant could not quite procure it by a whole year's labour.

The ninth assessment is that discovered by Mr. Ruggles, and printed in his History of the Poor. It is also of Essex, and dated the Easter sessions, 1661. Prices are high in the spring of this year, and the harvest in the autumn was the worst of the whole century. This however the justices could not anticipate at the beginning of April. Either Mr. Ruggles was interested in agricultural labour only, and therefore does not record the wages of artisans, which is most probable, or the magistrates did not put artisans in the schedule. In this assessment, wages are 1*s.* 2*d.* from the middle of March to the middle of September, and 1*s.* from the middle of September to the middle of March, i.e. are the same as they were set ten years before. So are the wages of mowers and reapers at 1*s.* 6*d.* and 1*s.* 10*d.*, and women at 1*s.* 2*d.* This identity in the case of agricultural labourers suggests that the artisans' wages are also unchanged. Now in this year at Lady Day wheat was 42*s.* 8*d.*, malt 22*s.* 8*d.*, oatmeal 53*s.* 6*d.*; and the stock of provisions cost £15 3*s.* The wages of the peasant are the same as they were ten years before, £16 17*s.*, and I conclude that the artisan's were also the same, £21 5*s.* Both therefore could purchase the stock with less than a year's labour, the peasant having more than five weeks to the good, the artisan more than fourteen.

The tenth of the assessments is from Cullum's Hawsted, and is dated April 24, 1682. It is no doubt a mere extract from a far larger schedule. It is a Suffolk scale, issued at Bury S. Edmund's. It merely gives the scale of agricultural labour. This labour in summer is at 1*s.*, in winter at 10*d.* a day. The harvest wages are 1*s.* 8*d.* for men, 1*s.* for women. In this year wheat was 33*s.* 4*d.* at Lady Day, malt 17*s.* 6*d.*, oatmeal 59*s.* 5*d.*, the prices coming from near the place where the

justices sat. The price of the stock this year is therefore £13 11*s.* 4*d.* The wages of the peasant then for fifty weeks, taking the harvest rate at the maximum, are £14 19*s.*; and again the Suffolk peasant could earn his stock of provisions with the wages of five weeks to spare.

My last schedule, taken from the Archæologia, xi. 208, is an assessment made at Warwick, 'after the close of Easter,' i.e. about April 8, 1684, Easter Day being that year (old style) on March 30. In this scale the wages of the agricultural labourer, except in harvest time, are set at 8*d.* a day; in the summer half of the year, reaping and mowing at 1*s.*, and the former work when done by the woman being set at 8*d.* In the winter half the wages of the peasant are to be 7*d.* The free mason is to have 1*s.* 4*d.* in summer, 1*s.* 3*d.* in winter; the other master artisans 1*s.* in summer, 11*d.* in winter. I cannot but infer, from the persistence with which the penalties of Elizabeth's Act are insisted on in the Warwickshire assessment, which is signed by several well-known local names, that the scale was reactionary. In the spring of 1684 wheat was 36*s.*, malt 19*s.*, and oatmeal 62*s.* a quarter. The cost of the stock is now £14 19*s.*, exactly what it was in 1682. With the harvest wages the labourer in husbandry is to get £9 15*s.* 6*d.*, the artisan taking an average between the highest and lowest pay, winter and summer—the aggregate is £16 17*s.* 6*d.* In Warwickshire then the peasant was nearly twenty weeks behind, the artisan nearly six weeks to the good.

No one who examines the action of these quarter sessions assessments will doubt that the justices entirely ignored that part of the Act of 1563 which bade them take into account the current prices of food and clothing when they fixed the wages of labour. The Government and Parliament had been engaged for more than two centuries in a struggle with the workman, and had signally failed in the attempt at forcing down his wages. Prices were low, and wages remained unaffected. In the Wages Act of 1495 the Government had

virtually yielded to the situation, when they recognised as legal what had been long customary.

I repeat that, in itself, there was nothing strange in the attempt to fix wages by law. The Assise of Bread and Beer was intended to stereotype the wages of bakers and brewers. Corporations, civil and academical, were permitted to regulate prices, as well as to watch over quality. But except in times of occasional panic, the law did not attempt to fix the price at which corn should be sold, though it often did the price of meat. On the chance of a rising market depended, as was seen at that day, the hope of a rise in rents. And when the cost of everything rose with the price of corn, the other chance of a rise in rents was in stinting the earnings of the labourer and the profits of the farmer.

We may probably acquit the Government and Parliament of Elizabeth of designing to depress the wage-earning classes by means of the machinery which they devised under the Act of 1563. At any rate, the instructions which they gave the justices imply that their intention was to establish a sliding scale of wages, the quantity of which should annually rise and fall according to fluctuations in the cost of food and other necessaries. But that the Government should have thought that the Order upon whom this function was imposed would take these matters into consideration, would attend to the varying circumstances which should have modified the scale, or would have exercised their authority in justice to the workman, says but little for their intelligence. The working classes, owing to a variety of circumstances, the great rise in prices being the dominant factor in the situation, were now at the mercy of the employer, and the arbitrator between workman and employer was found in the person of the landlord, whose interest it was to grind wages down to the lowest and squeeze as much rent as possible out of the tenant. The agricultural literature of the seventeenth century bears witness to the tenacity and ubiquity with which the latter design was carried out, for it is a universal complaint. The history of the

quarter sessions assessments is, I submit, conclusive proof as to the success with which the former was followed. And the unintended testimony which Gregory King gives as to the beggarly condition of the labourer and tenant farmer at the end of the century shows how fully the object aimed at was attained.

We are accustomed to consider the seventeenth century as an age of heroes who were engaged in gigantic struggles, in which personal rights were vindicated against the perpetual conspiracy of the Court, aided by slavish priests and unscrupulous lawyers, who sought to assist the designs of the sovereign by the support of religion and law. We know that in the end and for a time the agents in this conspiracy were baffled, and after an armed resistance were overthrown, and that the forms of the old constitution were superseded by a successful soldier, whose government seemed strong and likely to endure, when it was after all unsettled, and dependent on his life only. Then we know that after Cromwell's premature death came a reaction and a restoration, not of the second Charles only, but of a shameless orgie, which lasted for a quarter of a century, of a malignant conspiracy against all liberty, counselled by lawyers in contrast with whose baseness the Finches and Noys seem almost disinterested patriots, and that finally the King was displaced and evicted when his designs seemed to be on the eve of their full accomplishment. After this comes the rule of Parliament. In 1542 the landowners abetted the policy of Henry, because they expected, and with reason, that they should share the plunder of the Church. In 1688 they deserted and expelled James, because they foresaw that the constitution which they were about to frame would enable them to plunder the nation.

During the whole of the seventeenth century, with the exception of the ten years of the Commonwealth, the justices in quarter sessions were vindicating, no doubt, their own liberties against the Crown, but were striving to depress and impoverish the labourer, to stint his very life. The law gave

them the power to consult their own interests, and they consulted nothing else. But the Civil War brought some relief to the lot of the wage-earner, as will be seen both from the assessments of 1651 and 1655, which the justices did not venture on disturbing after the Restoration. But in the assessments of 1682 and 1684 the former instincts are revived.

The Act of 1563 was the most powerful instrument ever devised for degrading and impoverishing the English labourer. When it had done its work effectually, the custom of publishing the assessments was dropped a few years before the abolition of this and the other labour Acts in 1825. There is no record of any debate on this alteration of the law. It is probable that the legislature believed that the spirit of the working classes was completely broken, and that the law of constructive conspiracy, which the dicta of judges had made so dangerously wide, was relied on as quite sufficient for the purpose of checking any attempt at combination with the object of improving wages. I may add that the rates fixed during the Commonwealth remained practically unchanged, and continued, as one can see from Arthur Young's Tours, to be the ordinary wages received down to the last quarter of the eighteenth century, if not even longer.

The comparative generosity of the Midland and Southern justices, and the extreme harshness of the Northern magistrates (well illustrated by the ferocious language of the last assessment which I have seen, that of the Lancashire magistrates on May 22, 1725), probably brought about that general migration from the more oppressed to the more favoured counties, and led to the enactment of the law of parochial settlement, which was the other powerful agent in degrading the labourer. The facts of the case are given in my Six Centuries, p. 396. All the circumstances are illustrated by the statistics of the poor-rate and hearth-tax, at the conclusion of the seventeenth century, printed above, pp. 120–123. The law had done its best to make the English labourer a serf without land. Even now he has hardly the courage to exercise or the experience

to understand the rights which have recently been conferred on him, or distrust and repudiate those who have been his oppressors for centuries.

The assessment system could not be extended to London, and no doubt the best workmen eagerly sought the best market and free conditions of labour. The greater part of my later entries come from London, and most of them from the accounts of the City churches, rebuilt under Wren's superintendence after the great fire, and for the repair of Westminster Abbey, to which, beginning with the last six years of the present period, Parliament made considerable grants. The rates paid there are probably, apart from the special position of the London workman, those of the best artisans which could be found, for still, as in the middle ages, the architect relied a good deal on the skill of the men who worked under him. The assessments show that the master carpenter and master mason were expected to be able to design. And thus even while the wages of such persons are low, it early began to be the custom to contract with them for definite pieces of work; and later on, when they still give bills of particulars, the items tend to be more of work done than of the cost of labour in its completion. Thus early in the seventeenth century, Merton College contracts with Akroyd, a Halifax mason, to do all the mason's work in the new quadrangle, and with another person to do the carpentry, both at fixed sums, whereas itself supplies the timber and rents the quarry from which the stone is to be procured.

It will now be convenient to examine in some detail the evidence of actual wages paid, and noted in the sixth volume. As usual, the largest amount comes from Oxford, Cambridge, and Eton, but other localities are to be found. And here I may observe that Oxford wages are generally among the lowest found, and I cannot but conclude that the various Colleges who hired labour must have appealed to an assessment which has not been discovered. On the other hand, the highest provincial wages are those paid in Canterbury, and I

have learnt from those who have studied the local history of Canterbury that good wages for labour have always been a characteristic of that city. For example, in 1585 the wages of no artisan in Oxford and Cambridge are above 1*s.* a day, or 6*s.* a week, except those of two joiners at All Souls College, who are engaged for a long time on some special work, while the Canterbury carpenter and mason, for repairs to a parish church, are paid 7*s.* and upwards; the mason and man are paid at the rate of 12*s.* a week, the rate elsewhere being at best 10*s.*; and the pair of sawyers 2*s.* 4*d.* a day, when the highest price elsewhere is 2*s.*, and by the hundred (120) feet superficial, even less. Even the carpenter's or mason's man, who elsewhere gets 4*s.* a week, gets 5*s.* at Canterbury. Low prices also rule at Eton. The King paid well, if indeed the wages debited to him reached the workman. His neighbours perhaps took advantage of the situation and got workmen at less than ordinary wages.

Let me take again rates in 1589. The Fellows of King's College have no doubt some nice work on hand. They hire a free mason for a short time at 2*s.* 2*d.* a day, probably to deal with something unsatisfactory in the chapel. But their other labourers are paid at rather high rates. Carpenter and man, mason and man, the pair of sawyers, and the plumber and man, are paid at 2*s.* a day together. The plumber by himself gets 1*s.* 4*d.* At Oxford the prices are lower, some of the labourers are wretchedly paid in the more ancient University, a number at only 2*s.* 9*d.* the week. In 1589 wheat was 26*s.* 11½*d.* the quarter, malt 13*s.* 10¾*d.*, and oatmeal 27*s.* 4*d.* At Kirtling, Lord North pays a carpenter only 10*d.* a day, but the hiring is in November.

In the year 1606, to take another instance, King's College pays 1*s.* 2*d.* to a carpenter, 1*s.* 8*d.* to a plumber who is looking to the chapel leads, the mason getting only the ordinary wages of 1*s.* The prices at Eton and Oxford do not go beyond the common rate. The New College plumber was on the roof of chapel and hall, for those parts only of the College

buildings had leaden roofs. The city authorities, too, only pay 1*s.* a day to artisans. In this year the price of wheat is 31*s.* 9½*d.*, of malt 17*s.* 6¼*d.*

In 1609, which according to my method of reckoning the year by the harvest is the date of the Rutland assessment, the carpenter's and mason's wages have become generally 1*s.* 2*d.* a day at Cambridge, but they remain at a shilling a day at Oxford. I have noted that just about this time there was a slight upward rise in wages at Cambridge. In this year the average price of wheat was 35*s.* 2¼*d.*, of malt 22*s.* 3¾*d.*

In 1610 Dorothy Wadham is building her College, and the payments, taken from the accounts, illustrate the system under which this College, the handsomest specimen of Jacobean architecture in existence, was erected. She gives the chief man, i. e. the architect, £1 a week, and he certainly did his work better than the modern impostor does, who gets fifty times as much. She seems to have hired also five different classes of masons at wages ranging from 8*s.* a week to 5*s.*, and to have paid their labourers, i.e. journeymen in this case, at rates from 6*s.* 9*d.* to 4*s.* One of her carpenters, no doubt the man who planned the roofs, is paid 8*s.*, and another 6*s.* The rise at Cambridge is maintained, but the Oxford artisan and labourer is no better off. General prices are fully 15 per cent. higher at Oxford than at Cambridge, and wages nearly as much lower.

Sometimes an extraordinary price is given when the work is exceedingly difficult or noisome, and occasionally the account, as it were, excuses the magnitude of the pay by designating the occasion. Thus for instance in 1622, Eton College pays a bricklayer 2*s.* a day for fourteen days, the ordinary rate being half this sum. On this occasion no information is given as to work done, but I make no doubt that he was repairing the brickwork about the boiler, as he is repairing the oven in 1640 when he is paid 2*s.* 6*d.* a day, other bricklayers not receiving half the money. The same rate is paid in 1646, 'for work under the copper, that being extra-

ordinary.' So in 1637, the wages paid by the same College for carpenters' and joiners' work about the organ is far in excess of customary prices. Again, when unskilled labour gets as a rule 8*d.* a day, a man engaged in scouring a sink by night is paid at the rate of 1*s.* 6*d.* In 1649, when an ordinary labourer is paid by Eton College 1*s.* a day, others who are said to be scouring a ditch, which is described as 'a noisome work,' are paid at the rate of 1*s.* 5½*d.*, a broken sum, which looks like a bargain. In the next year, several men are engaged to scour ditches, which the College account describes as 'a most filthy work,' and get 1*s.* 6*d.* a day for their labour. The cleansing of foricae, by which is no doubt meant the emptying of cesspools, is not always well paid. In 1649, Winchester pays 1*s.* a day; in 1651, only 9½*d.*; in 1653, 1*s.* 7*d.*; in 1655, 1663, and 1684, 1*s.* 6*d.* The last two entries are from Eton. Still in 1631, a man who works at a cesspool gets 10*d.*; in 1635, 1*s.*; while one who scours 'vaults' is paid 2*s.* 6*d.* in 1648.

The first four assessments, on which comment has been made, are from the Northern counties. The wages paid in the Midland and Eastern are fully fifty per cent. higher than the Northern rates, and such a difference appears to be regularly maintained between the Northern and other parts of the kingdom. As regards the rates actually paid, there seems to be a tendency upwards, in the case of the ordinary carpenter and the ordinary mason, when the actual wages earned are contrasted with those which twenty years before (vol. iv. 120) were set out in Rutlandshire, for the guidance I am persuaded of all England south of the Trent. Nor for the first twenty years of the period before me do the wages of the master or superior carpenter rise materially, though the three harvests of 1595–97 were times of famine, rye in 1596, the worst of the three, being nearly as dear as wheat, and the decennial average steadily increasing up to 1643–52, a period which was only a little dearer than 1653-62. During the first decade, it will be seen that the average wages of the master carpenter

were a fraction over 6*s.* a week, and those of the ordinary carpenter a fraction under this amount. But from the beginning of the seventeenth century they begin to slightly mend.

I am disposed to connect this rise with the plague of 1603, to say nothing of the visitations of 1592 and 1593. Now according to Graunt[1], who summarised the evidence supplied by the bills of mortality, the deaths by plague, within the district which was known by this name, were, in 1592, 11,503; in 1593, 10,662; but in 1603, 30,561; the population of London and its liberties in 1631 being, according to a census taken in August, 130,178; and in 1661, 179,000. It should be added that the former census was taken by the wards. One does not know how many were the deaths in other places, under this visitation, but it is clear, from the regulations drawn up by Merton College in 1603, that it was particularly severe in Oxford, so severe as to induce the residents in the College to utterly seclude themselves from the outer world. In 1625 the plague was even more deadly in London, 35,417 being reported to have perished by it; while in 1636, 10,460 deaths were set down to this cause. In 1625 there is evidence from the Magdalen College (Oxford) accounts that the plague prevailed in the University, that there was alarm about it in 1641, and in 1643 at Oxford, and that in 1665 the plague was especially deadly at Cambridge and Winchester. The conditions of life in London were no doubt worse than elsewhere, for if the proportion of deaths to births had ruled all over the kingdom, England would have been depopulated. For example, in 1651 the deaths in London were, if I can trust Mr. Corbyn Morris, who had access to the register, and wrote exactly a century later, double the births.

Even if this mortality prevailed in country towns and villages in a modified degree, it is hard to see how all the quarter sessions in all the counties could have prevented a rise in wages. That the machinery of the Act of 1563 had its

[1] Captain John Graunt's book on the bills of mortality was printed in 1676. He was a fellow of the Royal Society.

effects cannot be doubted; else after these visitations the phenomena of the fourteenth century would have reappeared, when the forces of Government were baffled in the efforts they made to keep down wages. My first Essex assessment is in 1651, when the rise had been effected and in great part acknowledged. But during a few years, in the second decade of the seventeenth century, I have a few labour prices from Theydon Gernon in this county. For instance, in 1616 the owners of this estate pay a tiler and help at the rate of 2*s.* 6*d.* a day, in 1617 a slater at 2*s.*, in 1618 women haymakers 8*d.*, in 1619 a mason and his man 3*s.*, rates constantly in excess of the county scale of 1651. But though some generous or just employers evaded the assessment, it does not follow that its provisions were inoperative.

It is not by any means easy to define the exact time at which the rise was effected and subsequently recognised by the county authorities. In the case of the ordinary carpenter there is a slight rise in every decade, till at the end of the period the rate of wages is double that at which it stood in the first. Here however I must inform my reader, and I have taken care to note it in the tables which follow, the record is more or less affected by London prices from 1678 onwards. The wages which least of all represent London influences are those of sawyers and tilers, and in husbandry that kind of labour which was rarely affected by London rates, viz. digging, hedging and ditching, the best-paid labour other than harvest-work among the peasantry. On the other hand, it should be stated that the London artisan or labourer had no opportunity of improving his money wages by cultivating small plots of land, by commonable rights or by bye-products, but had to rely almost entirely if not exclusively on his employer's payments.

On the whole, the most marked rise in wages is in the decade 1643–52, and generally speaking this rise was maintained, in some cases increased, in the following decade. Now as I have frequently stated, the first of these decades had the

worst series of consecutive harvests during the whole century, for in 1646 wheat was at 51*s.* 10¼*d.*, in 1647 at 62*s.* 6*d.*, in 1648 at 67*s.* 10½*d.*, in 1649 at 65*s.* 6*d.*, in 1650 at 55*s.* 4*d.*, and in 1651 at 48*s.* 10*d.*, prices to which no parallel could be found, all circumstances being considered, at any previous period of English agricultural history. Nor is it easy to see how, through this terrible time, workmen could have subsisted at all, even though their wages were substantially raised.

Between 1663 and 1672 there is another marked rise in wages, not indeed absolutely universal, but so general that it cannot fail to be recognised. This I believe was due mainly to the ravages of the plague, for on the whole the price of wheat was low during this decade, being only up to the average of the whole century in one year; and I cannot but conclude, well as I am aware that wages are generally higher when prices are low, that looking at the existing organisation of English society, at the severity of the labour laws, and the determination of the landowning interest of the time to sacrifice and screw everybody if they could only raise their rents, the improvement of the labourers' condition was due to a scarcity in the labour market with which even justices' assessments could not grapple and no scales could control.

The last thirty years of the period are greatly modified by London prices. As time goes on, the accounts become less precise, contracts take the place of hirings, and even occasional repairs are paid for in a collective bill. Country prices do not it is true quite fail, but they become very few and irregular.

The principal part of my information during the last thirty years is derived from two manuscript volumes in the Bodleian Library, one in the Rawlinson, and the other in the Gough collection. The former is a very large and thick folio, containing an account of the expense incurred, under the general superintendence of Wren, in rebuilding the many city churches destroyed in the fire of 1666, for which collections were made all over England, and a special tax imposed on London, Middlesex, and part of the adjoining counties, in the shape of

coal-dues, a tax which has been continued up to the present time. The other volume is an account of the moneys voted by Parliament for the repair of Westminster Abbey, also under Wren's supervision, from 1697 onwards, some of the results of this expenditure being now visible in the west end of the church. Even here, however, there is a great deal of contract work. Wren's hirings are of masons, bricklayers, carpenters, plumbers, and workmen's labourers, though there is far less information about carpenters' wages than about any other kind of labour, as so much is done by measure and contract. One does not find sawyers, tilers or slaters, except the latter very rarely, for the board and plank used were supplied by the master employers, and almost all the churches, had, like the abbey, their roofs leaded. I think it also not improbable that the demand for artisan labour in the rebuilding of London after the great fire must have stimulated the migration of artisans to the metropolis, which was I have already stated exempt from the system of quarter sessions assessments. But on the whole the rise in the wages of labour, the effect of London prices being subtracted from the estimate, was fully from fifty to sixty per cent., as gathered from wages paid.

This inference will be most conveniently illustrated by taking and comparing the average rates of wages, in the different callings appended to this chapter, in two divisions, the first sixty and the last sixty years. This contrast will, it is true, bring out, in the result, the very marked effect of London prices, but it also assists the interpretation of the rise during the last sixty years of the period. Now the first general and unquestionable rise in wages is during the sixth decade, and it is exhibited in nearly every kind of labour. But it is during this decade that almost all kinds of corn are heightened in price, and that a marked but hardly permanent elevation is shown in the price of beef. I conclude therefore that the assessments had had the effect of dragging the wages of the labourer down to bare subsistence, and that the fact becoming obvious, it became necessary first to disregard the

scale, and next to adjust or modify the scale to the necessary facts. But the whole situation will come out more clearly when the rise in wages is compared with the rise in prices, and the purchasing power of wages at different periods is derived from a summary of the facts. I may here merely state that the average price of wheat for the first sixty years was 36*s.* 0¾*d.*, of malt 21*s.* 4*d.*, and of oatmeal 37*s.* 9¼*d.*; of the next sixty, 41*s.* 11¼*d.*, 24*s.* 1¾*d.*, and 52*s.* 11*d.* When the rise was once effected, the rate of wages became permanent, and remained nearly unchanged for more than a century, i. e. at least to the time of Arthur Young's Tours.

The allowance for 'meat and drink,' when the labourer found himself, was obviously insufficient. The Northern rate is 4*d.* a day, and in some cases less, i. e. 2*s.* a week at best. Now in vol. iv. p. 753, I have quoted the rates paid for boarding workmen at the dock-yards, especially in those years when the average price of wheat was 21*s.* 3¼*d.* In the four years of the Northern assessments, when the allowance was 2*s.* a week, the average was 31*s.* Nor at any time, however high was the price of provisions, did the allowance for meat and drink go beyond 3*s.* a week.

In early times, as I have noticed in my former volumes, allowances of drink, or of beer and bread, were made to workmen in addition to their money wages, under the name of nonsheynes, bevers, and beverage. The custom may have been continued, and as the allowance was taken from the household store, may not be noted. But when the workman was in the employ of a master, it is not likely, except as a mere piece of good-nature, that the person who engaged workmen would always covenant to find them refreshment, and it is certain if money was given in place of this allowance, that it would appear in the accounts. But I have very rarely found allusion to such a commutation. In 1602, the city of Oxford hires a carpenter and his son, and pays them 19*s.* 8*d.* for thirteen days' labour. It also allows 3*s.* 4*d.* for 'bevers to both,' or a little over 3*d.* a day. Again, in 1624 New College

hires two carpenters, and includes 'the allowance for beer,' 2*d.* a day each, in the wages they pay. If the practice were usual, this would make, though not in an advantageous form to the labourer, an addition of a shilling a week to his wages. But I think that I should have been able to discover it more frequently, had the custom been common, in the note of a commutation.

Even when wages were reduced to a minimum by the efforts of those whose interest it was to effect this result, and who were armed by the law with powers and penalties against the reluctant workman, some wages must be customarily higher than others. I cannot of course assert that it was possible for any workmen to secure such constant employment, as would justify me in inferring that on an average such artisans and labourers as might procure continuous employment, actually did obtain it. I can only say that I find no difference in the rate of wages when engagements are long and when they are short. Still some employments are in their nature more susceptible of continuity than others. Frost does not necessarily interfere with a carpenter's or sawyer's work as it does with that of a mason and bricklayer, and whether the workman has or has not a margin over bare subsistence, the remuneration of a precarious occupation would generally be in excess of one which may be continuous. This fact is brought out in the averages. In the first sixty years, the best carpenter gets 11½*d.* a week less than the best mason, in the last sixty 1*s.* 1¾*d.* The common carpenter gets 3*d.* a week less than the common mason in the first sixty years, and the reversal of this relation in the last sixty years of the period is due to the scarcity of the common carpenter's work by the side of the common mason's, and by the effect of the London wages, entries from which have filled up many gaps in the record of ordinary carpenters' wages. The bricklayer in the seventeenth century had only local employment, but the same contrast may be made between him and the sawyer.

Sawyers' work was either by the day or by the piece. If by the

day, the wages of the upper and under workmen were generally put together, but are sometimes separated, in which case the under workman gets the wages of the artisan's help. Now most of my evidence as to sawyers' wages comes from the country, these workmen being rarely employed in London, and in the case of these persons the rise is almost exactly fifty per cent. But it is plain from the prices paid for piece-work, that a pair of sawyers were considered to be able to saw a hundred (120) feet superficial of plank or board in a day. The assessments occasionally put the price by the piece at a lower rate than that by the day, and the averages imply that this valuation was effective. The same result in a slight degree is exhibited in fifteenth-century prices of labour, and those for the greater part of the sixteenth century (vol. iv. p. 524). In the present case the difference is even more marked. It should be added, that sawing plank is better paid, whether by day or by piece, than sawing board. The work of cutting thick slabs must, I conclude, have been more laborious than the other.

The plumber is the most highly paid of all artisans. His wages are considerably higher than those of the best carpenter and the best mason. This fact I presume is more due to the comparative rarity of the employment than to the relative skill of this artisan, for he is generally employed, when paid by wages, in laying and mending lead roofs, the preparation of the lead, when the employer does not buy it ready rolled, being generally paid for by piece.

There are a few entries of joiners' wages. It is not always easy to distinguish this kind of workman from the better class of carpenters, such for instance as those who are employed in building organ-cases, or similarly difficult work. But though I cannot draw complete decennial averages, I have little doubt that the average rate of wages in the first and the last sixty years indicates with sufficient precision what was the remuneration which this kind of artisan received.

The tiler or slater, and the tiler or slater and man, whose

wages are constantly given together, and are with very rare exceptions entirely represented by country employment, show the fifty per cent. rise in the last sixty years which I have so frequently referred to. Sometimes, as at Eton in 1659 onwards, employers hire a workman who is able to do all sorts of repairs, whether as bricklayer, tiler, or mason. It is very likely that many such persons were found on the spot, or let it be known that they were ready for such engagements; and that when exceptional work had to be done, that it was necessary to get workmen from a distance. Thus in 1617 Eton sent to Maidenhead for two millwrights, and paid them the high wages of 1*s.* 8*d.* a day for their services; and on three occasions at least, 1619, 1621, 1622, New College hired one Dubba and his son to hang bells, also at a comparatively high rate of payment. The New College account of 1620 is lost.

The artisan was generally attended by a labourer, in the building trades a hodman, in tiling or thatching a man or woman to prepare and carry tiles or straw to the workman on the roof, in carpentry and sawing to do the rough work, or to stand in the saw-pit. The wages of this person are quite uniform during the first thirty years of the period, whatever be the place in which he is employed, and in the next decade he gets only a fractional or local rise, which is quite trivial in the aggregate. In the fifth decade the rise is continued, and in the sixth he gets a shilling a week more than he did in the first three. In the seventh there is a further rise, and for the next forty years the rate is nearly uniform. The wages of the last decade are heightened by London payments. The rise on the last sixty years is a little over fifty per cent.

The wages of the artisan's help represent, I feel sure, the minimum rate of wages which the justices' assessments were intended to enforce, more accurately than any other kind of wages does, and unless Elizabeth was exceedingly extravagant in the contracts which she made for her workmen in 1573, 1577, and 1578, must have been hardly equal to the barest necessities of life. In point of fact, at the best, the prices of

food were increased on the whole nearly sevenfold over those which prevailed before the general rise of prices occurred, while the rate of wages, in this kind of labour, has hardly increased threefold. It is no wonder then that pauperism increased so seriously in the seventeenth century, that the poor-rate was equal to a third of the taxes granted in time of peace, and that Gregory King considered that the men who made the nation's wealth were a burden on the accumulative powers of the nation, when compared with the gains of those who got or stole the wealth.

There is one kind of labour, fairly common in the earlier period, which I had hoped would have supplied me with sufficient evidence for decennial averages at least. This is the work of the plasterer or pargetter, the workman who did the lath and plaster work which was so common in private houses, or who filled up with similar work the angular spaces in timber-framed houses. But paper buildings, as they were called, were not very common in college buildings, in which durability was a first consideration. But this kind of construction was exceedingly common in private houses, and when judiciously renewed on the outside is very enduring. There are I do not doubt timber-houses in Oxford which have been covered from time to time with lath and plaster and are as old as the days of the Edwards.

But the last entry which I have found of plasterers or pargetters' work is in 1650, when a rise very like that which is visible in the wages of other craftsmen is seen. Up to that time, with rare exceptions, the work of this craftsman was not paid better than that of a common carpenter or mason, if it is not fractionally worse paid. I therefore abandoned all idea of presenting averages of this work, and it is sufficient to say that it is nearly always paid at 6*s.* a week up to the sixth decade, and at 8*s.* afterwards.

There is only one kind of agricultural labour for which there is nearly continuous information, only one year failing me. This is the labour of digging, hedging, or ditching, when

paid for by the day. During the first sixty years this labour is a little better paid than that of the artisan's labourer, and the advantage would have been maintained but for the fact mentioned above, that the last decade is affected by London wages. Of course nearly all the notes which have been taken of this kind of labour are of country prices, and of agricultural work. Under these circumstances, the rise is not 50 per cent. and upwards, but only about 32¾ per cent. There is however, I think, a reason, I can hardly call it an excuse for this fact, to which I shall refer hereafter. The watchful prying quarter sessions prevented the natural growth of wages, even though such wages were supplemented from other sources.

There is only one other set of wages, of which I have by no means continuous information, but enough I hope for the purposes of illustration, on which I have to comment before I proceed to deal with evidence which is often more copious, though more broken. I have ventured however on constructing decennial averages of women's work of the common kind, such as hoeing and weeding, as opposed to harvest wages. Here the average for the first sixty years is *2s. 3d.* a week, of the last sixty, in four decades of which I have found evidence, it is *2s. 6¾d.* I have only found seven entries of the payment of women's work in haymaking, all in the first sixty years, when the average is *3s. 6d.* a week. It is probable that in later years women's work conformed to the justices' scale, which defines the pittance they are to receive.

Though I am not in possession of even as much information on the wages paid to agricultural labour as I was when I was commenting on the facts of the last two volumes, I am still able to illustrate at an early and a late part of the period what was paid for day and piece labour for purely agricultural labour, and for occupations which were not artisan. For example, threshing by the day and the quarter, mowing by the day and the acre, reaping and binding by the acre, and washing and shearing sheep by the score are to be found, and most of them early and late.

Threshing by the day is found in the first year, and in the last but one. But between 1622 and 1689 I have not come across a single entry. Threshing would naturally be one of the poorest paid of men's occupations. It was generally carried on during the short days, and under cover. The time therefore during which the peasant could be employed was brief, for light was necessary, and he could be at work when the state of the weather shut him out from other work in the fields. Now my first entry of thresher's labour is at Gawthorp in Lancashire, where he has only 4*d.* a day. The next, in 1584, is at the same place, where his wages are put at 3*d.*, his board at 3*d.* In 1590 the wages are 6*d.* at Gawthorp, and at Worksop 6*d.* and 5½*d.* In 1599 and 1600 Lord Spencer pays 6*d.*; in 1602, only 5*d.*; in 1622, 7*d.*; so that a slight increase is effected. In 1689 and 1691 the service is paid at 1*s.* in Hurley, Berks, and in 1701 at 1*s.* in Foxcombe, Hants. Most of these early entries are in the North, where wages were naturally low, and were further depressed by the assessments.

Threshing rye costs at Worksop from 8*d.* to 7*d.* a quarter in 1583, 8*d.* in 1587, while barley is threshed at 6*d.* In 1589 it is again 6*d.* at the same place. In 1590 rye again costs 8*d.* In 1592 and 1593 Lord Pembroke pays 6*d.* for oats, 9*d.* for rye. In 1599 Lord Spencer pays 7*d.* for meslyn and peas, and in 1600 he gives 6*d.* for barley and meslyn. In 1601 the same nobleman gives 7*d.* for wheat and barley, while Lord Pembroke pays 8*d.* for barley and 6*d.* for oats. In 1602 Lord Spencer pays 7*d.* for wheat and barley, and in 1603 Lord Pembroke 6*d.* for oats. In 1621 Lord Spencer pays 6*d.* for barley. In 1626 wheat is threshed for the owner of Mendham (Norfolk) at 1*s.*, peas at 1*s.*, rye at 10*d.*, barley at 7*d.* At the same place, in 1627, wheat is at 1*s.*, rye at 10½*d.*, barley at 7¾*d.*, oats at 4*d.* In 1646, at Lavenham (Suffolk), wheat and barley are at 2*s.*, oats at 1*s.*; an enormous rise. But in 1648 wheat at Castor (Northants) is threshed at 8*d.* In 1699, at Foxcombe, oats cost 7*d.* In 1700 wheat

costs 2*s.*, barley and oats 11*d.*; and in one place a load of wheat, five quarters, at 2*s.* 6*d.* In 1700 and 1702 oats are threshed at 9*d.*, these two last localities being also Foxcombe. Imperfect as these notices are, and almost capricious, they seem to indicate a rise in price closely similar to that of other kinds of labour.

The payment made for mowing an acre of grass or grain naturally varies with the density of the swarth. Thus when Shuttleworth pays at the rate of 4*s.* 1½*d.* the acre in 1583, and Lord North at 2*s.*, 1*s.* 4*d.*, and 1*s.* 6½*d.* next year, we may be sure that the crop was lighter on the Cambridgeshire meadow than it was on the Lancashire. In 1597 King's College pays 1*s.* 7¼*d.* an acre for mowing and making hay, and in 1599, 1*s.* 3*d.* and 1*s.* 4*d.* In 1604 the same place pays at 1*s.* 9½*d.* In 1611 and 1612 Shuttleworth pays 1*s.* 6*d.* for mowing. In 1613, mowing and making costs 1*s.* 10¾*d.* at Cambridge. In 1617 Shuttleworth pays 1*s.* 8*d.* for mowing, but in 1618 only 8*d.* is paid at Northiam, which must mean a very light crop. In 1621 King's College pays 1*s.* 6*d.* In 1657, 1*s.* 4*d.* is paid at Horstead Keynes. In 1699 occur two entries which I simply give as I find them. Wheat is cut at Foxcombe at 1*s.* 4*d.* an acre, Lent corn mown at 8*d.* In 1702 the Cuckfield farmer pays 1*s.* 8*d.* an acre for mowing.

In 1592, mowing, making, and carrying the produce of an acre of grass, no doubt at the Cherwell meadows, costs Magdalen College 7*s.* 6¼*d.* an acre. This may be compared with 5*s.* 4*d.* an acre, the price paid between 1546 and 1582 (vol. iv. p. 494). In 1661, mowing and making an acre at Winchester is paid for at 9*s.*; while in 1599, mowing, making and carrying each load from Osney mead to Corpus Christi College, Oxford, is paid for at the rate of 4*s.* 5½*d.* Such is also probably the service paid for at so high a rate by Shuttleworth in 1583.

Now omitting the prices of 1583 and 1618 in the first sixty years, and that of 1699 in the last, the average for

mowing an acre in the first period is 1*s.* 7¼*d.*, in the second nearly 1*s.* 7*d.*, so that we must infer that for the last period at least the notices are too few for an accurate inference, or that there was no rise in the price of the service.

Much more instructive is mowing by the day. This in the first sixty years is nearly 10¼*d.* a day, or, to be quite accurate, 5*s.* 1*d.* a week. In the second it is over 1*s.* 5¼*d.* a day, or 8*s.* 8*d.* a week. This again more than represents the proportionate rise to which I have often referred, being 70 per cent. increase. The later entries are from Hurley in Berks, and are always at 1*s.* 6*d.* a day, or 9*s.* a week. Haymaking is paid at 8*d.* a day in 1619, at 10*d.* in 1623 (women 8*d.*), at 10*d.* in 1623, at 1*s.* in 1678 and 1691. Pitching and binding hay is at 10*d.* in 1608, making hay by the acre at 1*s.* 6*d.* in 1621, while making a ten-load rick of hay costs 10*s.* 6*d.* in 1683.

Most of my entries of the wages paid for reaping by the acre are early, and nearly all from Gawthorp. In 1583, 1586, 1597 and 1604, the wages paid for reaping an acre of oats, barley, and mixtil is 3*s.* 4*d.*; in 1589 and 1617, barley and oats cost 3*s.* 8*d.*; in 1618, wheat is 3*s.* 9½*d.*; in 1700, 4*s.* The last two are at Northiam in Sussex and Foxcombe in Hants. These prices seem to be comparatively high. They include binding as well as reaping. In 1699 cutting wheat (the instrument not specified) is 1*s.* 4*d.* an acre at Foxcombe, and in 1700, 2*s.* 4*d.* at the same place. At the same place 'harvesting' is paid at 1*s.* a day, and in 1700 cutting and raking at 1*s.* 4*d.* But this may be, probably is, for cutting stubble. It is a little above ordinary agricultural wages, but not I think up to harvest payments.

There are several entries of washing and shearing sheep by the score between 1587 and 1601, and one in the last year but one. The two places which give information in the earlier period are Eton and Magdalen College, Oxford, and the price paid is generally lower at the latter than at the former. An average of sixteen entries gives 11¼*d.* the score. The last

entry is a little over 1*s.* 2*d.* the score. The payment is a good deal more than that made in the fifteenth and sixteenth centuries (vol. iv. p. 497).

The ploughman is paid at 4*d.* a day in 1584 at Gawthorp, but he probably has his board. There are a few entries of payment by the acre. In 1585, this is at 1*s.* 8*d.*; in 1586, at 1*s.* 2*d.*; in 1589, 1590, and 1591, 1*s.* 3*d.* These are all from Shuttleworth's accounts. In 1646 a ploughman and his son are paid 5*s.* an acre at Lavenham, and in 1699 ploughing is 3*s.* an acre at Foxcombe. The Lavenham price I am convinced includes the use of horses, and I am strongly disposed to think that the Foxcombe account does also. It was supposed (p. 53, supra) that a ploughman could cover from one to two acres in a day. In 1597 ploughing and harrowing are at 5*s.* an acre, the work being done three times over; and in 1598 ploughing thrice and hoeing once cost 6*s.* 8*d.* an acre for the whole operation. In these cases Shuttleworth must have hired horses as well as man. Harrowing is put at 6*d.* an acre; and in 1620, 1*s.* a day at Oxford, the workman being hired by Corpus Christi College. In 1589 a carter is paid 6*d.* a day, in 1691 a man in charge of a dung-cart 1*s.* The former price is at Eton, the latter at Oxford, where this is now the regular price of labour.

The payments made to gardeners are various, but, as might be expected from the very poor condition of horticulture in England, are generally low. In 1589 and 1591 they are paid 6*s.* a week in Oxford; in 1593 and 1595, 8*s.* and 7*s.* 9*d.* a week in London, being hired for the wealthy trader who had house and garden in Bassishaw Ward. But in 1599 and 1601 they get only 4*s.* in Oxford; in 1602, 5*s.* 4*d.* In 1606, also at Oxford, one gets 4*s.* a week, another 6*s.* In 1608, the Archers of Theydon Gernon, who always pay high wages, give 8*s.*; but in 1609, the Oxford price is 5*s.*; in 1610, 4*s.* In 1612 All Souls College pays 6*s.* In 1614 Cranfield pays 6*s.* to one, 8*s.* to another. In 1617 All Souls College pays 6*s.* In 1618 the Archers pay a gardener and his boy at the rate

of 9*s.*; in 1619 a gardener at 5*s.*, and two others, each with a boy, at 8*s.* and 9*s.* In 1621 New College pays 5*s.*, but Lord Spencer only 3*s.*, the lowest price registered. In 1622 a gardener and his man together get only 6*s.* 6*d.* at Cambridge, and in 1623 the Oxford price is 5*s.* In 1627 Oriel College pays a gardener and his man, evidently persons who could command their price, at the rate of 15*s.* 6*d.* a week, and another gardener at 6*s.* In 1629 a gardener is 5*s.* at Cambridge, 6*s.* at Oxford. In 1632 the Oxford price is again 5*s.* In 1636 New College hires a gardener, his son, and two women, at 3*s.* 4*d.* a day. But in 1637 it pays only 6*s.* a week to a gardener and his son, 5*s.* to the gardener by himself, and 3*s.* to a woman. In 1639 it pays the man and his son 10*s.* a week. In 1640 the wages of the gardener are 5*s.* This is the last year of low wages.

In 1645, 1647, and 1650, the gardener is paid 6*s.* at Oxford; at Cambridge, in 1651, 7*s.*; in 1655, 6*s.*; in 1659, 10*s.*; these two payments being at Horstead Keynes. In 1669 he gets again 6*s.*; in 1689, 9*s.*; in 1690, 6*s.*, the last two payments being made at Hurley. A gardener therefore gets only a trifle over the wages of an agricultural labourer, except when some special skill is required.

The agricultural writers of the seventeenth century strongly recommend the practice of densharing or devonshiring, that is paring and burning old pasture, with a view to turning it into arable. This kind of agricultural labour was very trying, and is now I believe almost if not quite obsolete. The workman was supplied with a peculiarly shaped steel spade, adapted to cut the turf at about an inch and a half below the surface and turn it over. The hands guided the tool, but the force was given to the handle (which was broad) by the workman's thighs, which were protected from injury by two stout pieces of oak strapped on to this part of his body. I have often seen the art practised in my youth. Now in 1700 the Foxcombe farmer (vol. vi. p. 651) determined to denshare on a considerable scale, for he treated in this manner thirteen and

a-half acres and thirty-one roods at a cost of £13 6*s.* 9*d.*, or at about 19*s.* 8*d.* an acre. In Arthur Young's time (Eastern Tour, vol. i. p. 444) the cost of paring and burning is set at £1 an acre.

In 1671 a Wiltshire labourer in a barn works for more than four months at 7*s.* a week. In 1601 Lord Spencer pays 3*s.* a week for mowing vetches, and in 1668 King's College 9*s.* for the same labour. In 1645 men making roads get 7*s.* In 1586 a mole-catcher gets 1*s.* a dozen for his catch.

The work of planting trees was paid for at about the same rate as the gardener's labour. In 1592 the wages are 4*s.* a week, between 1637 and 1676 they vary from 5*s.* to 8*s.*, the average being 6*s.* 6½*d.*

The unskilled labourer, by whom I mean one not apprenticed to any special craft, was a good deal occupied in the numerous woods and coppices which formed a very important source of income to the landowners of the seventeenth century. It is not however always easy, except in certain forms of this calling and the modes of paying it, to estimate the actual wages which woodmen earned. It is easy to interpret work by the day, but it is by no means easy always to make out what piece-work is.

Men engaged in wood-cutting and felling timber, and paid by the day, are generally paid more than agricultural work is and less than artisans' work, though sometimes a wood-cutter gets as much as a carpenter. Thus in 1583 Oriel College pays 5*s.* a week for wood-cutting in its own woods near Oxford, from which it generally obtained its fuel; while Corpus Christi College pays 6*s.* for felling timber. But in 1584 Magdalen College pays 4*s.*, the ordinary rate of agricultural labour, for wood-cutting. Again, in 1585 cutting timber is paid at 4*s.*, splitting at 4*s.*, cutting and splitting at 6*s.* In 1586 Oriel College pays 4*s.* and 5*s.* a week for cutting wood; and in 1587, 6*s.* for felling timber. In 1588, 1590, 1591, wood-cutting is paid at 4*s.*; and in 1591, felling timber at 5*s.*, the price given for cutting wood in 1594. In 1595 Eton pays

6*s.* for felling trees. In 1597 Oriel College gets the work done at 3*s.* 6*d.* In 1600, 1601 and 1603 it costs 4*s.*, felling wood in the last year being 6*s.* In 1605 Oriel College pays 5*s.* 1½*d.*; in 1606, 6*s.*; in 1610, 5*s.*; in 1611, 6*s.*; while cutting timber, generally 6*s.*, is sometimes 4*s.* 6*d.* In 1612 wood-cutting is 5*s.* and 6*s.*; in 1614, 6*s.*; in 1618 and 1619, 5*s.* In 1632 felling timber is 8*s.*; in 1645, 6*s.*; in 1671, 6*s.* 9*d.* and 6*s.*; in 1671, 6*s.* These are all by the week.

In 1659 Eton pays the winter wages of 6*s.* for cutting trees, though I presume that the greater part of the woodman's work was always done during the winter months. In 1691 wood-cutting at Oxford is at 8*s.* a week; in 1692, 7*s.* 6*d.* at Harting; and in 1694, 6*s.* 10½*d.* at the same place. In 1697 the Harting rate in January is 6*s.* 6*d.* I have found timber felled by the acre in 1595 at 8*s.*, and in 1616 at 13*s.* 4*d.*, but such a price is necessarily vague unless one knew how large the product was.

The price of splitting wood by the week varies from 4*s.* to 7*s.* 6*d.* An average of ten entries between 1585 and 1699 is 5*s.* 6½*d.*

Another estimate of wood-cutting is by the load, or reputed ton. In 1586, 1587, 1588 Oriel College pays 4*d.* for this quantity. In 1591 Magdalen College pays 6¼*d.* for cutting and splitting a load; in 1593, 5*d.*; in 1598 and 1599, 5½*d.* From this date I find no entry till 1622, when Oriel College pays 1*s.* 8*d.* a load for cutting, in this case I presume not firewood, but timber. From 1624 till 1635, only one year being missed, the price is 1*s.*; and here it is certainly firewood. In 1638 King's College pays 2*s.*; and no further entries are found.

It is not easy to explain this singular rise in price, for it is quite clear that what this College paid 4*d.* for at the beginning of the time, it had to hire at 1*s.* forty years later.

It is difficult to understand again the record of faggot-making by the hundred. Faggots were certainly very different in size, quality and price, as I have noted before in

dealing with them in the chapter on fuel. But very similar facts are discernible in examining the payment made for a hundred faggots which are seen in the rate for making a load of firewood. In 1583, 1584, and 1586 the payment is 8*d.* at Kirtling and 1*s.* at Oriel College in the last year. In 1587 Le Strange pays 1*s.* 4*d.*, Oriel College 1*s.* 1*d.* In 1588 it is 1*s.* 4*d.* at Hanesworth, while Magdalen College pays only 10*d.* for oak and furze faggots, though it gives 1*s.* 6*d.* for binding double-band faggots. In 1591 Oriel College pays 9*d.*, and in 1593 Corpus Christi College 1*s.* 9¼*d.* In 1595 Cambridge pays 9*d.*, Oriel College 1*s.* 8*d.* In 1596 Oriel College pays 1*s.* and 1*s.* 10*d.*, and in 1598 and 1599 Magdalen College 1*s.*, Lord Spencer in the latter year paying 9*d.* In 1600, 1*s.* and 9*d.* are the prices paid by Magdalen College and Lord Spencer. In 1601 Oriel College pays 1*s.* 8*d.* In 1602 Magdalen College pays 10¼*d.*, Lord Spencer 10*d.* and 9*d.* In 1603 Oriel College pays 2*s.* 3*d.*, All Souls College 1*s.* 2¼*d.* In 1604 Magdalen College again gives 10½*d.*, Lord Spencer 9*d.*; but in 1605 Magdalen College pays 1*s.* 6*d.* In 1606 Oriel College pays 2*s.* 4*d.*, and in 1607 Magdalen College 1*s.* 4*d.*

After this year higher prices prevail. In 1607 the Oriel College price is 2*s.* 3*d.*, in 1611 2*s.* 4*d.*, and the same at Corpus Christi College. From 1612 to 1635, only one year being missed, Oriel College pays 2*s.* 6*d.*; though for three years, 1616, 1618, 1619, the Achers get the hundred made at 1*s.* 2*d.*, Corpus Christi College in 1624 at 1*s.* 6*d.* and at 1*s.* 8*d.*, in 1627, though it also pays for a larger number, at 2*s.* 7*d.*, and in 1635 at 3*s.* In 1641 and 1642 Oriel College still gives 2*s.* 6*d.*, though after this year the College ceases to enter particulars. In 1644 the owner of Hickstead gives only 1*s.* 4*d.* In 1653 Winchester College pays 1*s.* 3*d.*; in 1661, 1*s.*; in 1671, 1*s.* 2½*d.* In 1692 the price is 1*s.* 5*d.* at Harting; in 1696, 1*s.* 8*d.*; in 1698, 1*s.* 3*d.*; and in 1699, 1*s.* 6*d.*

Now it is clear from these figures that there were different kinds of faggots, and that the South country article must have been quite another thing from that of Oxfordshire. But there

is no reason to conclude that the Oriel College faggot in early times differed from the later product, especially as some other colleges give the same price for the same labour. Now before 1607 the average Oriel College price is 1*s.* 6*d.*; after this date, it is for several consecutive years at 2*s.* 6*d.* But there is no evidence that wages were making any notable start at this time, and one is driven to the conclusion that either customary wages ruled in this calling and that the custom broke down, or, which is more probable, that in the earlier time the woodman had certain allowances in lieu of labour, and that subsequently he or his employer elected to pay or be paid in money. Making faggots is paid at 1*s.* a day in 1641, and making bavins by the load at 11*d.* in 1660.

In page 413 I commented on the bark which Eton College stripped from its oak timber and sold. For several years, beginning with 1659, the College notes the price which it paid for peeling and stacking this article by the load. It is I believe peeled with a strong iron instrument, the object of the workman being to take off as large a strip as possible. I have noted thirteen entries of the price paid for this labour, which is always 18*s.* 9*d.* a load, except in the two years 1663–4, when the College gets the work done for 18*s.* In 1633 the Fraternity of the Holy Ghost at Basingstoke get their bark peeled at 7*s.* the load, their load being 60 yards, that of Eton 55. In 1636 and 1637 Eton got the work done at 4*d.* a yard, which at the above reckoning is 18*s.* 4*d.* a load. There was therefore but little change in the price of this service. The load I conclude was, according to custom, reckoned at a ton[1]. In 1646 the work was paid for in Northamptonshire at 8*d.* and 1*s.* the day. In 1647 shaping timber is paid at 1*s.* a ton.

The pump of the sixteenth and seventeenth centuries was a wooden pipe, generally of elm, which the workman had hollowed. It was a work of some nicety, for the cylinder had to

[1] At 56 lbs. to the bushel, the load of wheat (5 quarters) is exactly a ton. Now 56 lbs. was thought the proper weight of a bushel of wheat.

be true, especially at the sucker. There are several entries of the price paid for this work by the foot. During the first ten years 11*d.* was paid, then to the end of the low-priced period 1*s.*, except in one year, 1626, when New College got a tree bored to the length of 25 feet at 9*d.* In 1646 Eton pays 1*s.* 7*d.* In course of time the leaden pipe supersedes the wooden. The metal pumps were more durable and more manageable. I have commented on these pipes under the table of Sundries. In 1635 the labour of the pump-mender is paid at 1*s.* 3*d.* a day.

Another kind of agricultural labour constantly paid by the piece is hedging, ditching, or hedging and ditching by the pole or rod of 16½ feet. Our forefathers were quite alive to the expediency of efficient drainage. They trenched their land and filled their trenches with stone, they adopted a system of ridge and furrow in cultivation, and they did their best to convey superfluous moisture into ditches. It is probable that some of the most permanent agricultural operations in existence are the ditches round fields, which in all likelihood are often as old as English agriculture.

The cost of hedging, ditching, or doing both, by the rod, varied with the state of the ditch. The assessments define the dimensions and depth of the ditch, but rarely venture on fixing the price of the labour. Nearly all my entries are plainly of old hedges and ditches, which the workman had to trim, in order to keep them close, and to cleanse, in order to secure their efficiency. In the agriculture of the seventeenth century, hedging and ditching seems to have been done by the occupier, and my entries, when they are not of farming operations, are of owners who were also occupiers.

The difference between the cost of cleansing or making good an old and of making a new ditch are well illustrated by the entry from Eton in 1677. Hedging, ditching, and fencing old ditches of 282 poles in length is done at 6*d.* a pole, which is rather below the ordinary price of the time. But making a new ditch costs five times as much by the pole. After har-

vest operations, and perhaps thatching, both temporary or exceptional, the best agricultural skill is shown in making a new ditch; and if I am rightly informed, there is no part of the farm labourer's craft, which has perished more generally, under the hateful tyranny to which the peasant has been subjected at the hands of his oppressors, than good ditching.

Almost all the entries of ditching which I have discovered are therefore the cleansing of old ditches. The highest price which I have noted is in 1637, when 10*d.* a pole is paid. In the entry of 1638, the newness is in the hedge. The old quickset or crab hedge was worn out, and having been cut down and perhaps grubbed up, the husbandman planted a new one, the sets for which he frequently collected himself, as part of his agreement, in the coppices. Planting a pole of quicksets is well illustrated in the next entry from Eton in the year 1638. Hedging and ditching without new planting is paid at 6*d.* the pole. The planting is 4*d.* a rod, and a good workman could plant over two rods a day.

Ditching by the pole varies greatly according to the state of the ditch. In my notes, it ranges from 2½*d.* a pole to 10*d.*, and there are indications that the price was in accordance with the general rise in the wages of labour during the last sixty years of the period. An average of thirteen entries between 1589 and 1695 is 5½*d.* the pole.

The price of hedging by the pole, only occasionally varies through the whole period, wherever the information comes from. Between 1644 and 1701 there is only one year in which any other price than 3*d.* is given, and in that it is an alternative. Before that period it ranges from 2*d.* to 5½*d.* It is also found twice by the score of poles, at 2*s.* the score. In one year the price (7*d.*) includes quicksetting, by which is I infer meant that the hedge had become thin, and the workman had filled up the gaps. The hedging was merely clipping the shoots of whitethorn or crab. Our ancestors used these shrubs only in their hedges, the blackthorn or sloe making indifferent cover, and being apt to tear sheep's wool. Plashing,

that is cutting down a neglected hedge, is 8*d.* a pole in 1607; hedging by the day, between 1648 and 1701, is pretty uniformly 1*s.* A good workman would therefore hedge more than four poles a day, and as the average of a ditcher's wages between 1658 and 1696 was a little over 1*s.* 3*d.* a day, or, to be precise, 7*s.* 7*d.* a week, I conclude that he could perhaps do three poles a day by piece. Digging by the pole in 1692 is 6*d.*, and the same by the yard, of course cubic.

The record of hedging and ditching by the pole is fuller than that of hedging, and exhibits far greater varieties, for the price by the pole is higher in 1598 than it is in 1701, though the year 1598 contains also the lowest entry. The rate is as high as 1*s.* and as low as 3*d.*, for the work to be done when the labourer was engaged varied exceedingly, and the price to be paid was settled by special bargain. The average from thirty-eight entries is nearly 7*d.*

Another kind of piece-work by the pole is frequently found in the later part of the period. This is the construction of pales for a fence. The price of this labour is uniformly a shilling.

Common or unskilled labour analogous to what has been already described is—levelling, at 1*s.* a day; spreading dung in 1648, 1*s.*, in 1669, 11*d.*; laying in coal in 1659 at 1*s.*; strewing gravel in 1631 at 1*s.*; fixing posts in 1645 at 1c*d.*; weeding at 1*s.* in 1652, 1c*d.* in 1655, and 1*s.* 2*d.* in 1668; setting quick-sets at 1*s.* in 1667.

Hewing timber is paid at 1*s.* 6*d.* the load in 1601; at 1*s.* 2*d.* and 1*s.* 4*d.* in 1635; at 1*s.* 4*d.* the ton in 1650; at 1*s.* 3*d.* in 1653 and 1655; making lath-pins at 2*s.* 6*d.* a bushel in 1660; cutting turf at 1*s.* 2*d.* a day in 1697, and laying in at 1*s.* in 1658. Squaring timber by the day is 1c*d.* and 1*s.* in 1584, 1c*d.* in 1590, 1*s.* in 1593, and 1c*d.* in 1596. It is therefore paid nearly at the rate of artisan labour.

In 1631 Caryll it seems determined to make or repair a fishpond at Harting. He hires two kinds of labour, one at 1*s.* 6*d.* a day and another at 1c*d.*, the rate at which his

labourers in husbandry are paid. The latter evidently waits on the former, as the pairs are employed for exactly the same number of days. Working in water is always paid at a higher rate than ordinary labour. Thus in 1585 it is at 10*d.*; in 1646 at 1*s.*; in 1662, 1663, and 1665 it is at 1*s.* 6*d.* In 1668 Eton employs a number of men for a considerable time in scouring a pond at 1*s.* 4*d.*, ordinary labour being at this time 1*s.* a day.

There are several other kinds of labour, employed more or less frequently and of considerable significance, in building and other avocations, some paid by the piece, some by the day. One of the commonest of these is lath-rending. I should conclude, from the almost unchanged rate at which this service was performed, that it was a bye-industry, done after working hours, or when the labourer could not find employment. It is so frequently recorded, that I have been able to construct a series of decennial averages, in which only one of the decades is unrepresented, and I am persuaded that the price in this decade did not vary materially from those which have been drawn. Sometimes the laths, or *asseruli* as the accounts often call them, are plainly pales, as in 1600 and 1629. The rapidity with which the work of lath-rending could be done is illustrated by a day payment (10*d.*) in 1611 for the service.

Another common kind of piece-work is paving by the square yard. This is generally paid at 3*d.*, though when the work requires great nicety, as when the floor of chapel or hall is laid, the rate is higher. Thus in 1597 All Souls College buys paving tiles, probably for the hall floor, and pays at the rate of 5*d.* a foot for the labour of laying them. In 1614 King's College lays 90 feet of marble, no doubt in the choir, and 220 feet of rag, almost certainly in the nave, at 7½*d.* the foot. In 1632 Corpus Christi College puts down paving by the foot at 1*d.* In 1646 King's College again paves the chapel at 2½*d.* the foot, and in 1654 Winchester lays 518 feet of paving at 5½*d.* Lastly, in 1693 S. John's College, Cambridge, lays paving at 3*d.* a foot.

The commoner kind of paving is for footpaths, and even for streets, with stone or pebbles as the case may be. An average of thirty-one entries is $3\frac{5}{8}d.$ a yard. On one occasion, at Canterbury, the yard is expressly said to be, yard by yard and a-half.

The higher class of paving is much more expensive. Expanding the square feet into square yards, the average cost of the paving on which I have already commented is $3s.$ $0\frac{3}{4}d.$ a yard.

In 1592 Eton hires bell-hangers at $1s.$ a day; in 1605 they are paid $1s.$ $2d.$ But in 1619, 1621, and 1622 New College engages one Dubba with his son for this service. In the first year they give the pair $2s.$ $7\frac{3}{4}d.$ a day, in the second $3s.$, in the third $2s.$ $10d.$ and $2s.$ $8d.$ The clockmaker is paid $5s.$ $7\frac{1}{2}d.$ a day for eight days by King's College in 1662. In 1657 a glazier is paid $1s.$ $6d.$ a day; in 1666, $2s.$; but in 1628 King's College pays a glazier and his man $4s.$ $5d.$ a day, no doubt because they were employed on the chapel windows. In 1593 All Souls College engages a surveyor to 'plot' estates at $2s.$ $6d.$ a day, and in 1595 another at $4s.$ a day while he is absent, and $3s.$ while he is at home. The art of surveying land was carried to considerable perfection by this time, an excellent specimen of the art, almost at this period, being preserved in the Gamlingay survey, completed in 1603 by Langdon at a cost of £12. These surveys were very necessary to corporations, as disputes constantly arose as to the actual dimensions of College lettings. Another well-paid workman is the bookbinder, who is paid for himself and man $2s.$ $4d.$ a day in 1598. In 1614 this artisan is paid by the piece, $3s.$ to $5s.$ for folios, $1s.$ $4d.$ for quartos, and $10d.$ for octavos. The labour of polishing millstones is also well paid, $2s.$ a day in 1621.

The wages of the silversmith might be inferred from the difference between raw silver or old plate, and fashioned articles, but the inference is confirmed by the note of what was actually paid. In 1595, 1604, 1612, and 1621 the silversmith gets $8d.$ an oz. for his labour. In 1615 King's College

engages a silversmith to make 245 ounces of plate at 1*s.* an ounce, and this I conclude was something more elaborate than ordinary. In 1651 there is a curious entry in the Winchester College account. A silversmith is engaged to work up silver into plate at 6*d.* an oz., and 'is allowed 1½*d.* an ounce for waste,' which seems to me to be an indirect way of paying him 7½*d.* an ounce for his labour.

The ordinary manipulation of lead by the plumber on piece-work is entered under three heads. 'Laying' it by the pound, melting it by the hundredweight, and casting it by the hundredweight. The first and third process appear to me to be the same, and the work to consist in reducing pig-lead or old remelted lead to sheet. Thus in 1583 and 1594 lead is laid at a farthing a pound, in 1666 at a half-penny. These rates of course are 2*s.* 4*d.* and 4*s.* 8*d.* the cwt. Now in 1609 lead is cast at 2*s.* the cwt.; in 1611 at 2*s.* 4*d.* and 2*s.*; in 1624 as low as 1*s.* 10*d.* In 1635 the price rises to 3*s.* 4*d.*, and continues at that rate till 1639, when some is cast at 5*s.*, probably pipes, of which hereafter. In 1672 S. John's College, Cambridge pays 5*s.* a hundredweight. In London the charge of casting is less, from 2*s.* to 3*s.*, as is shown partly by what is actually paid, and partly by the difference between the price of mason's lead and sheet during the last thirty years of the period. 'Melting' lead is priced three times, in 1651, 1653 and 1655, at 1*s.* 5*d.*, 1*s.* 5½*d.* and 1*s.* 6*d.* the cwt., and appears to be half the process. In 1666 the cost of making lead-pipe is set at 4*d.* a pound. Apart from the material then, lead-piping cost a good deal more than twice as much as sheet-lead costs the purchaser.

In 1658 a painter is paid 2*s.* 2*d.* a day. By the yard he gets 1*s.* 6*d.* in 1609. This job probably required nice and careful work, for he only gets 8*d.* a yard in 1691, and 7*d.* in 1699. In 1662 colouring and varnishing wainscot costs 4*d.* a yard. In 1666 the man who carved the timber in the Eton gallery is employed for 13½ days at 2*s.* 6*d.* a day. In 1646 a house-painter gets 2*s.* a day, and in 1646 a whitewasher and

boy 2*s.* In 1594 one coppersmith is paid 1*s.* 4*d.*, and another 1*s.* 8*d.* a day. Leading glass is paid at 3*d.* a foot in 1625, and work at the clock-frame costs 1*s.* 6*d.* a day in 1623. In 1637 Eton pays a man who mends the organ 2*s.* 6*d.* a day, and in 1663 Winchester pays an organ-builder and his man, probably Smith or Harris, 14*s.* a day for twenty-eight days. In 1645 King's College pays one artisan 2*s.* 6*d.* a day and two others 2*s.* a day for mending a pinnacle.

In 1603 brickmakers are paid by Eton at 3*s.* 2*d.*, and in 1604 at 3*s.* the thousand. Squaring and laying lead and iron costs 1*s.* 10*d.* a foot in 1610. Wall-making is sometimes undertaken by the perch, at 1*s.* 4*d.* in 1593, at 2*s.* in 1594, at 1*s.* 4*d.* in 1616, at 1*s.* 2*d.* in 1621, at 2*s.* 9*d.* in 1627, and at 1*s.* 4*d.* in 1666 and 1674.

The tiler is sometimes paid by quantity. In 1594 and 1601 he gets 1*s.* 10*d.* a hundred, in 1607 2*s.* In 1621 the slater is paid 2*s.* 8*d.* for laying a hundred square feet of slating. In 1654 a square of tiling costs 2*s.* 4*d.*, that is I presume a square of a hundred superficial feet[1].

Brass is cast at 4*d.* a pound in 1627; bell-metal at 3*d.* in 1602, at 4*d.* in 1636, and 6*d.* in 1645. But in 1617 it is cast at 10*s.* the cwt., in 1636 at 11*s.* The high price by the pound is for small bells, 124 lbs., 77 lbs., and 164 lbs. But in 1617 the quantity is 2343 lbs., and in 1636 11 cwts.

Building is contracted for at 20*s.* a pole in 1646. In 1686 carpenter's work is taken at 10*d.* a yard, and much of the work done at the City churches and Westminster Abbey is paid for on this principle. A tailor is paid 1*s.* a day in 1630, 1*s.* 3*d.* and 1*s.* 6*d.* in 1636, and a person is engaged to mend arras in 1605 at 1*s.* 1¾*d.* A mortar-mixer gets 10*d.* a day in 1647, and 1*s.* in 1648, a significant change.

Pigs are gelded at 3*d.* in 1608 and at 2½*d.* in 1654, and killed at 6*d.* in 1611. A wheelwright is paid 1*s.* 4*d.* a day in 1601, and with his man 2*s.* 6*d.* in 1610. Headed work costs 8*d.* a yard and plain work 4*d.* in 1668. Hop-pickers (men) get

[1] See Tate's Modern Cambist, edit. 1856, p. 9.

9*d.* a day in 1614, women 5*d.*, and the account, Cranfield's, notes that they began work on August 18th. Squaring timber is paid at 3*s.* a hundred in 1583, mending lead is 1*s.* a day in 1611, and the thatcher in 1588 gets as much as the tiler or slater, 1*s.* a day. A smith is hired at 1*s.* 4*d.* a day in 1598, and at 1*s.* in 1602 and 1604. Boys' work is 3*d.* a day in 1620.

Before I proceed to the only remaining details of this mass of evidence on the wages of labour, I should comment on the number of persons and the wages of persons in Lord Spencer's household in 1601. I could have made a numerous collection of such persons, but the magnitude of my two volumes will be such that I have been constrained to drop one or two lists of particulars which did not seem to me of high interest. And in this case a single instance will suffice, for there is evidence in abundance that the wages of domestic servants did not rise very much during this period, and that justices' assessments pretty fairly indicate what wages were actually paid. Domestic service was in fact a great resource for those persons who had no means of occupying land, and the estimate which Gregory King makes of the households of persons in different ranks of society is contemporaneous testimony to the practice.

Lord Spencer has thirty-one male and nine female servants at Wormleighton, then his principal residence. Of the men, one has £10 a year, another 66*s.* 8*d.*, a third 53*s.* 4*d.*, and one 26*s.* 8*d.* The remaining twenty-seven have 40*s.* each. One of the female servants has £10 a year, another £3, another 50*s.*, and the other six 33*s.* 4*d.* each.

The other kind of labour on which I have to comment, and on which I have but little information, and that chiefly from the North and in early times, is the labour bestowed on the making of textile fabrics. I have no doubt whatever that the spinning-wheel was in nearly every house and the hand-loom in many, that the majority of English families were clothed in homespun, linen, hempen and woollen cloth, and that the

greatest amount of that which was manufactured for sale came from the domestic industry of cottagers. Long after the time about which I am writing, there is information as to how the villagers came with their stock of yarn and cloth into Leeds and Bradford, and chaffered with the dealers. It is not at all impossible that the low wages of Northern England are to be explained by the almost universal presence of this bye-industry. Had I been able to come at more information as to private expenditure, I should have, I doubt not, found abundant evidence as to the prices of textile labour. They are all by piece.

The materials are wool, hemp, flax and tow, and occasionally hair. The operations are spinning yarn, and weaving linen, hempen and woollen cloth. In 1586 wool was spun at 2*s.* a stone, in 1595 at 2*s.* 4*d.*, in 1599 at 2*s.* 4*d.* and 2*s.* 6*d.*, in 1616 at 2*s.* Spinning flax in 1608 is paid at 2*s.* a pound, spinning hemp in 1654 at 10*d.*, spinning tow in 1607 at 4*d.* The article I suppose was served out raw, and brought back in yarn. The earlier prices are from Theydon Gernon, the later from Horstead Keynes. Besides these, in 1617 spinning yarn is priced at 6*d.*, also at Theydon Gernon, but the material is not given. It is very likely tow. I may add that swingling hemp was done by women at 4*d.* a day, Shuttleworth hiring seven for this work.

In 1587 Lord Pembroke pays 1*d.* a yard for weaving cloth, the material not stated, but probably woollen. In 1588 he pays 1*d.* and 1½*d.* a yard for weaving frysado. In 1590 Shuttleworth pays 1½*d.* and 1*d.* for weaving cloth, and Lord Pembroke 3*d.* for weaving woollen. In 1607 the Archers pay 4*d.* a yard for weaving cloth, in 1618 5*d.* an ell, i.e. the same price as in 1607, and in 1620 2*d.*, this being designated as tow cloth.

In 1586 Shuttleworth gets blanket woven at ¾*d.* a yard; in 1588 Lord Pembroke pays 1½*d.* The blanket in these cases is probably a coarse frieze worn by servants in husbandry, and constituting the livery of which we read in the justices' assess-

ments. The Worksop account does not tell us what the material was from which forty-six yards of cloth was procured at a cost, in weavers' labour, of 2*s.* 2*d.*, or a fraction over ½*d.* a yard. In 1698 narrow cloth was woven in London at 3½*d.* an ell, but this is perhaps not woollen, as the ell is rarely used for such products.

In 1587 Lord Pembroke gets linen woven at 3*d.* a yard. In 1590 Shuttleworth gets it done at 1*d.* But we may understand the quality of this cheap labour when we find the same person paying 6*d.* a yard for fine shirting linen. In 1595 Shuttleworth gets 168 yards of hempen and flaxen cloth woven for 11*s.*, i.e. at a little over ¾*d.* a yard. In this year wheat was 40*s.* 9*d.* a quarter. In 1597 Shuttleworth pays 4*d.* a yard for weaving shirting. In 1620 the Archers pay 2*d.* an ell for weaving tow cloth.

In 1588 canvas is woven at three prices, ½*d.*, ¾*d.*, and 2*d.* the yard. These prices are paid by Shuttleworth. In 1594 he pays 1½*d.*, in 1596 a little over five-eighths of a penny, in 1598 a fraction over 1*d.*, in 1609 1*d.* In 1594 he gets 38 yards of haircloth spun and roved for 11*s.*, or about 3½*d.* a yard. In 1591 he gets fourscore yards of hempen woven at 1*s.* the score.

There are a few entries of articles the materials for which were given out to the weaver, and for finishing which he is paid. In 1616 the Archers pay 2*s.* 6*d.* for weaving a dozen napkins, and in 1619 and 1623, 3*s.* In 1656, 8*d.* a pound is given for spinning, I presume knitting, woollen stockings. In 1698 weaving a pair of common sheets costs 3*s.* 9*d.*, and weaving a pair of fine sheets 7*s.* 4*d.* Scanty as this information is, it yet I think contains the key by which to interpret the proportion which the cost of materials and that of labour bears to finished goods, for as yet the middle-man had not begun to appropriate the profit of the producer and to employ all his faculties in cheating the consumer.

Let me sum up the contents of this chapter. All kinds of labour obtained a rise during the seventeenth century, but the

rise was necessary, in order that labour should even live. Wages had been driven down to starvation point, and as far as we know, or shall ever know, the mass of the people acquiesced in its misery, and believed, as it was taught from thousands of pulpits to believe, that their degradation was Providential, and must be borne with resignation. The patriots of the first half of the century and the profligates of the last half were equally indifferent to the misery of the poor, upon whose labours they lived. It is no wonder that one of those later patriots, Fletcher of Saltoun, who was a republican for the rich and well-born, but had no interest in the fortunes of the workman, should have suggested, as part of the noble edifice of liberty, that the mass of the people should be doomed to hopeless bondage [1].

The chief value of historical study, the all in all of economical history, is to show how far the present is the outcome of the selfish folly or the wise foresight of the past. We have inherited in our times the fruit of that vile conspiracy, the justices' assessment. We are now suffering the experience of what was sure to come in time from the practices of which every agricultural writer of the sixteenth and seventeenth centuries complained, the systematic plunder of the farmer by the ordinary landlord, and as far as they could and can do it still, the plunder of the nation. When I deal with rents in the seventeenth century, the condition of the farmer, and the purchasing power of wages, I shall hope to make the situation clear.

The subjoined tables, with the decennial averages, are of the highest price of the carpenter's wages and the mason's, of the ordinary carpenter and mason, of the bricklayer, the pair of sawyers, of sawing by task, of the tiler and slater, of the tiler and help and of the artisan's help, of the carpenter and man,

[1] The proposal, and the reasons on which Fletcher urges it, will be found in his 'Second Discourse on the Affairs of Scotland,' 1698. The pamphlet is worth reading for the comments which the author makes on the Scottish system of letting land. Fletcher does not share the views of the Duke of Argyll.

the mason and man, the plumber and man, the bricklayer and man, of the joiner, and of the ordinary agricultural hand. The decennial averages give the wages by the week, and contain also the ordinary wages of women by the week, and lath-rending by the thousand.

WAGES.—AVERAGES.

	Carpenter, highest price.	Carpenter, average.	Mason, highest price.	Mason, average.	Bricklayer.	Sawyers, pair.	Sawyer, *c* feet.	Tiler or slater.	Tiler and man or slater and man.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1583-4	1 0	1 0	1 0	1 0	.....	1 7	.....	.....	1 10
1584-5	1 0	1 0	1 2	1 0	1 0	1 6½	.....	1 0	.....
1585-6	1 2	1 0	1 0	0 11¼	.....	2 1	1 7½	1 0	1 8
1586-7	1 2	1 0	1 4	1 0	0 11	1 7½	1 6	1 0	1 8
1587-8	1 0	0 11¼	1 4	1 0	.....	1 11 [a]	.....	1 0	2 0
1588-9	1 0	1 0	1 1½	1 0	1 0	1 10	1 7	1 0	1 8
1589-90	1 0	1 0	2 2 [1]	1 0	1 0	1 10	.....	1 0	1 8
1590-1	1 2	1 0	1 0	1 0	1 0	1 6½	1 9	1 0	1 8
1591-2	1 0	1 0	1 2	1 0	.....	1 10	2 0	1 0	2 0
1592-3	1 0	1 0	1 0	1 0	1 0	1 9	.....	1 0	1 8
1593-4	1 0	1 0	1 0	1 0	1 0	1 10¾	1 6	1 0	1 8
1594-5	1 0	1 0	1 8	1 0¾	.....	1 9¼	1 6	1 0	1 10
1595-6	1 1	1 0	1 4	1 0	.....	1 7	1 6	1 0	1 10
1596-7	1 0	1 0	1 0	1 0	1 0	1 10¼	1 10	1 0	1 8
1597-8	1 0	1 0	1 0	1 0	1 0	1 8	1 11	1 0	1 8
1598-9	1 0	1 0	1 0	1 0	1 2	1 11	1 10	1 0	1 8
1599-1600	1 0	1 0	1 0	1 0	1 0	1 11	1 9¾	1 0	1 8
1600-1	1 0	1 0	1 4	1 0	1 0	1 10¾	1 8	1 0	1 8
1601-2	1 0	1 0	1 0	1 0	1 0	1 10½	.....	1 0	1 6
1602-3	1 0	1 0	1 0	1 0	1 0	1 11	1 8	1 0	1 8
1603-4	1 0	1 0	1 4	1 0	1 1	1 10½	1 8	1 0	1 8
1604-5	1 2	1 0	1 0	1 0	1 1	1 10	1 8	1 0	1 8
1605-6	1 5½	1 0½	1 0	1 0	.....	1 11½	.....	1 0	1 8
1606-7	1 2	1 0	1 0	1 0	1 0	2 0	1 10	1 0	1 8
1607-8	1 2	1 0	1 0¾	1 0	1 4	1 9¾	2 4	1 0	1 10
1608-9	1 4	1 0¼	1 0	1 0	1 0	1 10	1 10	1 0	1 8
1609-10	1 2	1 0	1 2	1 0	.....	2 0	1 8	1 0	1 8
1610-1	1 4	1 1	1 4	1 0	1 2	2 0	2 3¾	1 0	1 8
1611-2	1 2	1 0	1 0	1 0	1 2	2 0	2 3	1 0	1 8
1612-3	1 2	1 0	2 0	1 0	.....	2 0	.....	1 0	1 8
1613-4	1 2	1 0	1 4	1 0	1 0	2 0	.....	1 0	1 10
1614-5	1 2	1 0	2 0	1 2	1 0	2 0	.....	1 0	1 8

[1] Free mason.

WAGES.—AVERAGES.

Carpenter and man.	Mason and man.	Plumber.	Joiner.	Plumber and man.	Bricklayer and man.	Labourer to artisan.	Digging, hedging or ditching.	
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	
1 5½	1 8	1 0	.....	1 6	.....	0 8	0 9	1583–4
1 8	1 10¼	1 2	.....	.....	1 8	0 8	0 9	1584–5
1 9½	1 9½	1 3	1 3	1 8	.....	0 8	0 9	1585–6
1 8	1 8	1 3	1 3	.....	1 8	0 8	0 8	1586–7
1 8	2 0	1 0	.....	1 7	.....	0 8	0 9	1587–8
1 9	1 9	1 4	.....	1 11¼	1 8	0 8	0 9½	1588–9
1 11	1 10	1 4	.....	1 8¾	1 8	0 8	1 0¼	1589–90
1 9	1 7	1 4	1 0	2 0	1 8	0 8	0 9	1590–1
1 9½	1 8	1 2	.....	.....	.....	0 8	0 9	1591–2
2 0	1 8	1 2	.....	2 0	1 8	0 8	0 8	1592–3
1 8	1 8	1 2	1 0	.....	.....	0 8	0 10	1593–4
1 9	1 8	.....	1 6[1]	.....	.....	0 8	0 9	1594–5
1 8	1 8	1 2	.....	2 0	.....	0 8	0 10	1595–6
1 9	1 8	1 4	1 0	2 0	1 8	0 8	0 10	1596–7
.....	1 10	1 4	.....	.....	1 8	0 8	0 9½	1597–8
1 4	1 10	1 2	.....	2 0	1 8	0 8	.....	1598–9
1 7	1 10	1 1½	.....	2 6	1 8	0 8	0 10	1599–1600
1 10	1 10	1 2½	.....	2 0	1 8	0 8	0 10	1600–1
1 10¼	1 9	1 4	1 4	2 0	1 8	0 8	0 10	1601–2
1 9	1 9	1 4	.....	2 0	.....	0 8	0 10	1602–3
1 10	1 10	1 2	1 2	1 10	1 8	0 8	0 8	1603–4
1 10	1 8	1 2	1 2	1 10	1 9	0 8	0 10	1604–5
1 11	1 8	1 4	.....	2 0½	.....	0 8	0 11	1605–6
1 10	1 9	1 3	.....	2 4	1 8	0 8	0 10	1606–7
1 7	1 8	1 2	1 2	2 2	2 2	0 8	0 10	1607–8
1 8	1 10½	1 1	1 2	1 11	1 8	0 8	0 10	1608–9
1 9	1 8	1 0	1 2	2 0	.....	0 8	0 10	1609–10
1 10½	1 10	1 0	1 4	.....	1 10	0 8	0 10	1610–1
2 0	1 8	1 2	1 0	1 8	1 8	0 8	0 10	1611–2
1 11	1 8	1 4	1 2	2 8	.....	0 8	0 8½	1612–3
2 0	1 10	1 2	1 3	2 4	1 8	0 8	0 8	1613–4
1 10	1 9	.....	.....	.....	1 8	0 8	0 10	1614–5

[1] London.

	Carpenter, highest price.	Carpenter, average.	Mason, highest price.	Mason, average.	Bricklayer.	Sawyers, pair.	Sawyer, *c* feet.	Tiler or slater.	Tiler and man or slater and man.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
1615–6	1 4	1 2	1 4	1 2	.....	2 2	.....	1 0	1 8
1616–7	1 2	1 0	1 3	1 1	1 0	2 0	.....	1 0	1 9
1617–8	1 2	1 0	1 0	1 0	1 0	2 0	.....	1 0	1 8
1618–9	1 2	1 0	1 0	1 0	1 0	2 6[2]	.....	1 0	1 9½
1619–20	1 0	1 0	1 0	1 0	1 0	2 0	2 3	1 0	1 8
1620–1	1 0	1 0	1 2	1 0	1 1	2 0	2 5½	.....	.....
1621–2	1 0	1 0	1 2	1 0	1 2	2 0	2 4¾	1 2	2 2
1622–3	1 2	1 0	2 0[1]	1 4	1 1½	.....	2 3	1 2	1 8
1623–4	1 0	1 0	1 2	1 0	1 0	2 4	2 1	1 0	1 6
1624–5	1 2	1 0½	1 8[1]	1 2	.....	2 0	2 5	1 0	1 10
1625–6	1 0	1 0	1 2	1 1	1 0	2 0	2 2½	1 2	1 8
1626–7	1 0	1 0	1 6[1]	1 1	1 1	2 0	2 5	1 0	1 8
1627–8	1 0	1 0	1 8	1 4	1 0	2 0	.....	1 6	.....
1628–9	1 0	1 0	1 4	1 3	1 0	.....	.....	.....	.....
1629–30	1 4	1 1	1 4	1 4	1 1¼	2 2	.....	.....	.....
1630–1	1 4	1 1	2 6[1]	1 5	1 0	2 2	2 4½	.....	2 6
1631–2	1 2	1 2	2 6[1]	1 4	1 0	.....	.....	.....	2 1¼
1632–3	1 4	1 1	1 4	1 1	1 1	2 2	2 0	1 0	1 8
1633–4	1 6	1 2	2 0[1]	1 3	1 6	2 4	.....	1 2	1 10
1634–5	1 6	1 2	2 0[1]	1 3	1 0	3 4	.....	.....	.....
1635–6	1 8	1 1	1 4	1 1	1 1	2 2	.....	.....	1 8
1636–7	1 4	1 1	1 4	1 1	1 1½	2 4	.....	1 2	1 11
1637–8	1 8	1 1	1 4	1 3	1 0	2 1½	2 8	.....	.....
1638–9	1 6	1 2¼	1 2	1 2	1 0	2 4	.....	1 2	.....
1639–40	1 6	1 2	1 4	1 0	1 3	2 4	.....	.....	1 11
1640–1	1 6	1 2	1 8[1]	1 2	1 2	2 3	.....	.....	1 8
1641–2	1 6	1 4	1 6	1 4	1 4	2 5	2 6	.....	.....
1642–3	1 4	1 4	1 4	1 4	.....	.....	.....	1 6	.....
1643–4	1 6	1 6	1 4	1 4	.....	.....	.....	1 4	.....
1644–5	2 6	1 7	2 2	1 4	1 4	.....	2 2	.....	.....
1645–6	1 6	1 4	2 6	1 6	1 3	2 8	2 2	.....	2 6
1646–7	2 4	1 6	2 6	1 7¼	1 5	2 3½	2 2	.....	2 2
1647–8	1 8	1 5	1 8[1]	1 4	1 5	2 7	2 1¾	.....	2 0
1648–9	1 6	1 4	1 8[1]	1 4	1 5	2 7½	2 2	1 4	2 4
1649–50	1 6	1 6	2 0[1]	1 4¾	1 4	2 9	2 6¼	2 8	.....

[1] Free mason. [2] London.

Carpenter and man.	Mason and man.	Plumber.	Joiner.	Plumber and man.	Bricklayer and man.	Labourer to artisan.	Digging, hedging or ditching.	
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	
1 8	1 11	1 6	.....	2 2	.....	0 9	0 9	1615–6
1 10	1 10	1 4	.....	2 0	1 8	0 8	0 11	1616–7
1 10	1 9	1 4	1 0	2 2	1 8	0 8	0 9	1617–8
1 10	2 4	1 4	.....	2 2	1 8	0 8	0 10	1618–9
1 8	1 8	1 4	.....	2 2	1 8	0 8	1 0	1619–20
1 10	1 10	1 6	1 4	2 4	1 10	0 8	0 10	1620–1
1 8	1 10	1 4	1 4	2 2	1 10	0 8	0 9	1621–2
1 10	1 11	1 5	.....	2 2	1 8	0 8	0 10	1622–3
.....	1 10	1 6	.....	2 2	1 10	0 8	0 10	1623–4
1 10	1 10	1 4	.....	2 2	1 10	0 8	0 10	1624–5
.....	1 10	1 6	.....	2 2	1 10	0 8	1 0	1625–6
1 10	1 10	1 6	.....	2 4	1 8	0 9	0 10	1626–7
1 11	1 10	.....	.....	.....	1 10	0 9	0 10	1627–8
1 10	1 10	1 6	.....	2 4	.....	0 9	0 10	1628–9
.....	2 1½	1 6	.....	2 4	1 10	0 10	0 10	1629–30
2 3	2 1	1 6	.....	2 4	1 10	0 9	0 10	1630–1
1 10	2 1	1 6	.....	2 4	2 0	0 9	0 11	1631–2
1 10	1 8	1 3	.....	2 2	1 10	0 8	1 0	1632–3
2 0	2 2	.....	.....	.....	1 10	0 10	0 11	1633–4
.....	1 11	1 0	.....	1 10	1 10	0 9½	1 0	1634–5
.....	2 0	1 6	.....	2 4	1 10	0 10	1 0	1635–6
1 11	1 8	1 6	.....	2 3	1 10	0 9½	1 0	1636–7
2 6	1 9	1 6	.....	2 4	1 10	0 9½	1 0	1637–8
2 6	1 10	1 6	1 4	2 4	1 10	0 10	0 10	1638–9
2 4	1 10	1 6	.....	2 4	2 2	0 10	0 10	1639–40
1 8	2 6	1 6	.....	2 4	2 3	0 10	1 0	1640–1
2 2	2 2	.....	.....	.....	2 2	0 11	1 0	1641–2
2 2	2 2	.....	.....	.....	.....	0 10	0 10	1642–3
.....	2 2	1 6	.....	.....	.....	0 10	0 10	1643–4
2 4	2 8	1 6	.....	2 4	2 4	0 11	0 10	1644–5
2 2	2 5	1 6	.....	2 8	2 4	1 0	1 0	1645–6
2 4	2 3	1 6	2 0	3 6	2 4	1 0	1 0	1646–7
2 4	2 2	1 6	1 4	2 2	2 4	0 11	1 0	1647–8
2 6	2 6	.....	.....	.....	2 6	1 2	1 0	1648–9
2 7½	2 6	2 0	.....	3 6	2 4	1 0	1 0	1649–50

	Carpenter, highest price.	Carpenter, average.	Mason, highest price.	Mason, average.	Bricklayer.	Sawyers, pair.	Sawyer, *c* feet.	Tiler or slater.	Tiler and man or slater and man.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1650–1	2 0	1 6½	1 10	1 6	.....	3 1	2 2	1 5½	2 4
1651–2	1 8	1 6	1 8[1]	1 4½	1 4	3 0	2 2	1 4	2 4
1652–3	1 8	1 6	1 6	1 5	.....	3 0	2 2	1 4	2 4
1653–4	1 8	1 4	1 8	1 5	1 8	2 8	2 3½	1 8	2 8
1654–5	1 6	1 6	1 8	1 8	1 8	2 4	2 4	.....	.....
1655–6	1 6	1 6	1 8[1]	1 6	.....	3 2	2 4¼	.....	.....
1656–7	1 6	1 6	1 6	1 6	.....	.....	2 6	.....	.....
1657–8	1 9½	1 6	1 8	1 3	.....	3 0	2 6	.....	.....
1658–9	1 6	1 6	2 0	1 6	.....	3 3	2 6	1 6	2 6
1659–60	1 6	1 6	2 0	1 8	1 8	3 0	2 6	1 10	2 10
1660–1	1 6	1 6	1 8½	1 6	.....	3 0	2 6	2 6	3 6
1661–2	1 6	1 6	1 6	1 6	.....	3 0	2 6	1 9	2 9
1662–3	1 9	1 8	2 6	1 8	.....	3 0	2 6	.....	.....
1663–4	2 0	1 6	2 8	1 6	.....	3 2	2 6	1 11	2 6
1664–5	1 8	1 6	1 8	1 6	.....	3 0	2 6	1 6	3 2
1665–6	1 8	1 6	1 8	1 8	.....	3 0	2 8½	1 8	2 8¾
1666–7	1 6	1 6	2 6	1 6	1 2	3 4	2 10	.....	2 0
1667–8	1 6	1 6	1 8	1 6	.....	3 0	.....	.....	.....
1668–9	1 9	1 8	2 4	1 8	.....	3 0	2 6	.....	2 2
1669–70	.....	.....	1 8	1 8	.....	.....	2 6	.....	2 2
1670–1	1 8	1 8	1 6	1 6	.....	.....	2 6½	1 6½	2 6½
1671–2	3 6[2]	2 0	3 0[2]	1 6	3 0[2]	.....	2 6	.....	.....
1672–3	2 8[2]	1 1½	3 0[2]	1 6	2 6[2]	.....	2 6	.....	2 6
1673–4	2 0	1 7	1 6	1 6	.....	.....	2 8	1 5	2 5
1674–5	2 6[2]	1 6	.....	.....	.....	3 0	2 6½	.....	.....
1675–6	2 1	1 10	2 6[2]	1 6	.....	.....	2 6	.....	.....
1676–7	2 6[2]	1 11	3 6[2]	2 0[2]	2 0	.....	2 6	.....	.....
1677–8	1 6	1 5	3 6[2]	1 6	2 6[2]	.....	.....	.....	.....
1678–9	3 0[2]	2 8[2]	1 8	1 6	2 6[2]	.....	2 8	.....	.....
1679–80	1 8	1 8	2 6[2]	1 2	1 6	.....	2 6	.....	.....
1680–1	2 6[2]	1 6	2 6[2]	1 4½	.....	.....	2 6	2 6[2]	.....
1681–2	2 0	2 0	2 6[2]	1 6	.....	.....	2 6	.....	.....
1682–3	2 6[2]	.....	1 4	1 2	.....	.....	.....	.....	.....
1683–4	2 6	2 0[2]	2 6[2]	.....	2 6[2]	.....	.....	.....	.....
1684–5	1 10[3]	1 10[3]	2 6[2]	1 6	2 6	3 11¼	.....	.....	.....

[1] Free mason. [2] London. [3] Deptford.

Carpenter and man.	Mason and man.	Plumber.	Joiner.	Plumber and man.	Bricklayer and man.	Labourer to artisan.	Digging, hedging or ditching.	
s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
2 4	2 10	2 0	.....	2 10½	.....	1 0	1 0	1650-1
2 6	2 5¾	2 0	.....	.....	2 4	1 0	1 0	1651-2
2 6	3 0	2 0	.....	.....	.....	1 0	1 0	1652-3
2 8	3 0	1 9	.....	2 6	2 8	1 0	1 0	1653-4
2 6	3 2	.....	1 6[1]	.....	2 8	1 0	1 0	1654-5
2 0	2 4	.....	1 6[2]	.....	.....	1 0	1 0	1655-6
2 4	2 4	2 0	.....	4 0	.....	1 0	1 0	1656-7
3 0	2 6	2 0	.....	3 0	.....	1 0	1 0	1657-8
2 10	2 6	1 6	.....	.....	.....	1 0	1 0	1658-9
2 6	2 7	.....	.....	.....	3 1	1 0	1 0	1659-60
2 6	2 6	.....	.....	.....	3 3¾	1 0	1 0	1660-1
2 6	2 9	.....	.....	.....	.....	1 0	1 0	1661-2
2 6	2 6	.....	.....	.....	.....	1 0	1 0	1662-3
2 10	2 9½	.....	.....	.....	.....	1 0	1 0	1663-4
2 6	2 6	.....	.....	.....	.....	1 0	1 0	1664-5
2 7	2 4¾	.....	.....	.....	.....	1 1	1 1	1665-6
2 6	3 3	2 0	.....	3 0	2 2	1 0	1 1	1666-7
2 4	3 0	1 6	.....	2 6	.....	1 0	1 0	1667-8
2 8	2 5½	.....	.....	.....	.....	1 0	1 1	1668-9
.....	2 8	2 0	.....	3 6	.....	1 0	1 0	1669-70
2 6½	2 6	.....	.....	.....	.....	1 0	1 0	1670-1
3 0	2 6	.....	.....	.....	.....	1 0	1 0	1671-2
2 3	2 6	3 0[3]	.....	.....	.....	1 1	1 0	1672-3
2 7	2 6	.....	.....	.....	.....	1 0	1 0	1673-4
2 6	.....	.....	2 6[3]	.....	.....	1 0	1 2	1674-5
3 0	3 8	.....	2 1	5 0[3]	.....	1 0	1 2	1675-6
.....	.....	.....	.....	.....	3 0	1 0	1 0	1676-7
2 6	4 2[3]	.....	.....	.....	4 2[3]	1 4[4]	1 0	1677-8
.....	3 2	.....	.....	.....	4 2[3]	1 0	1 0	1678-9
3 6	3 2	.....	.....	.....	4 2[3]	1 0	1 2	1679-80
2 9	2 2½	3 0[3]	.....	.....	.....	1 0	1 2	1680-1
3 0	2 9	2 6[3]	2 1¾	.....	.....	1 0	1 0	1681-2
.....	4 2[3]	.....	2 6	.....	.....	.....	1 3	1682-3
.....	.....	.....	2 6[3]	.....	.....	1 0	1 0	1683-4
.....	4 2[3]	.....	.....	4 8[3]	4 2[3]	1 0	1 2	1684-5

[1] Cooper. [2] Wheelwright. [3] London. [4] London in average.

	Carpenter, highest price.	Carpenter, average.	Mason, highest price.	Mason, average.	Bricklayer.	Sawyers, pair.	Sawyer, *c* feet.	Tiler or slater.	Tiler and man or slater and man.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1685-6	2 6[1]	1 8	2 0	1 4	1 8[2]	4 0[2]	.....	.....	.....
1686-7	1 3½	1 3½	2 6[1]	.....	2 6[1]	.....	.....	1 6	2 6
1687-8	2 6[1]	2 6[1]	2 6[1]	.....	2 6[1]	.....	.....	.....	.....
1688-9	.....	.....	.....	.....	.....	.....	.....	.....	.....
1689-90	2 6	.....	2 6[1]	.....	.....	.....	.....	.....	.....
1690-1	.....	.....	2 6[1]	.....	.....	.....	.....	.....	.....
1691-2	2 0	1 9	2 6[1]	.....	.....	.....	2 11	.....	.....
1692-3	.....	.....	2 6[1]	2 0	.....	.....	.....	.....	.....
1693-4	.....	.....	3 0[1]	2 8[1]	.....	3 3½	.....	.....	.....
1694-5	.....	1 6	3 0[1]	2 0	.....	.....	2 6	.....	.....
1695-6	.....	.....	.....	.....	.....	.....	.....	.....	.....
1696-7	.....	.....	.....	.....	.....	.....	.....	.....	.....
1697-8	2 6[1]	2 6[1]	2 6[1]	2 6[1]	2 6[1]	.....	.....	.....	.....
1698-9	2 6[1]	2 6[1]	3 0[1]	2 6[1]	2 6[1]	.....	.....	1 7	.....
1699-1700	2 6[1]	1 8	3 8[1]	2 6[1]	.....	.....	.....	.....	.....
1700-1	.....	.....	2 6[1]	1 6	.....	.....	3 0	.....	.....
1701-2	2 6[1]	2 0	2 6[1]	2 6[1]	2 6[1]	.....	2 9	.....	.....
1702-3	2 6[1]	2 6[1]	2 6[1]	2 6[1]	2 6[1]	.....	.....	.....	.....

[1] London. [2] Deptford.

Carpenter and man.	Mason and man.	Plumber.	Joiner.	Plumber and man.	Bricklayer and man.	Labourer to artisan.	Digging, hedging or ditching.	
s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	
.....	3 4	.....	1 8	.....	.....	1 0	1 0	1685-6
.....	4 2[1]	.....	2 0	.....	5 0[1]	1 0	1 1	1686-7
4 2[1]	4 2[1]	.....	4 0	.....	4 2[1]	.....	1 8[1]	1687-8
3 6	.....	.....	2 6	.....	.....	.....	1 8[1]	1688-9
.....	.....	.....	.....	.....	.....	1 0	1 2	1689-90
.....	.....	.....	.....	.....	.....	1 1	1 1	1690-1
4 0	4 0[1]	.....	.....	.....	5 0[1]	1 1	1 0	1691-2
.....	3 0	3 0[1]	.....	4 0	.....	1 0	1 0	1692-3
.....	4 0[1]	3 0[1]	.....	.....	.....	1 1	1 1	1693-4
2 6	3 0	.....	.....	.....	.....	1 1	1 2	1694-5
.....	.....	.....	.....	.....	.....	1 2	1 2	1695-6
.....	.....	.....	.....	.....	.....	.....	1 1	1696-7
.....	5 6[1]	2 6[1]	.....	4 2[1]	4 2[1]	1 8[2]	1 1	1697-8
.....	4 2[1]	2 6[1]	.....	4 2[1]	4 2[1]	1 8[2]	1 1½	1698-9
3 4	4 2[1]	2 6[1]	.....	4 2[1]	.....	1 8[2]	1 1	1699-1700
.....	4 2[1]	3 0[1]	.....	4 8[1]	.....	1 8[2]	1 2	1700-1
.....	4 2[1]	3 0[1]	.....	4 8[1]	4 2[1]	1 8[2]	1 1	1701-2
.....	4 2[1]	3 0[1]	.....	4 8[1]	4 2[1]	1 8[2]	1 2	1702-3

[1] London. [2] London in average.

Weekly Averages, except

	Carpenter, highest price.		Carpenter, average.		Mason, highest price.		Mason, average.		Bricklayer.		Sawyers, pair.		Sawyer, *c* feet.		Tiler or slater.		Tiler and man or slater and man.		Carpente and man.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d*
1583–1592	6	3½	5	11½	7	4½	5	11½	5	11	10	6½	10	2	6	0	10	6¾	10	6
1593–1602	6	1¼	6	0	6	9½	6	0½	6	1½	11	1	10	0½	6	0	10	1¼	10	1
1603–1612	7	3	6	0½	7	1¾	6	0	6	8½	11	6½	11	8	6	0	10	1¼	10	11
1613–1622	6	9½	6	1¼	8	0	6	5½	6	3	12	5¼	14	0½	6	2¾	10	6¾	10	9
1623–1632	6	9½	6	3¼	9	8½	7	3	6	2¼	12	9	13	6	6	8	11	1	11	5
1633–1642	9	0	7	0¼	9	0	7	1¾	7	0¼	14	5	15	6	7	6	10	9½	15	5
1643–1652	10	8½	8	10	11	3½	8	5¾	8	1¾	16	6	14	6¾	9	5½	13	8½	14	4
1653–1662	9	5	9	0	10	8¾	9	1¼	10	0	17	7¼	14	8¼	11	1	17	1	15	2
1663–1672	11	11¼	9	1	13	0	9	3½	13	4	18	6	15	4¾	9	11¼	14	10	15	5
1673–1682	13	4¼	10	8¾	14	4	8	9¾	12	9	18	0	15	3½	11	9	14	6	17	0
1683–1692	12	11¾	11	0½	14	8	9	8	14	0	23	9¾	17	6	8	0	15	0	26	8
1693–1702	15	0	12	8	16	3	14	0	15	0	19	9	16	6	8	6	.....		17	6
Average, first 60 years	7	0½	6	2¾	8	0	6	5¾	6	4¼	12	1½	12	6	6	3¾	10	6½	11	6
Last 60 years	12	2¾	10	2¾	13	4½	9	10¾	12	2½	19	0¼	15	7¾	9	8¾	15	0¼	17	8

SAWYERS BY THE *C*, WHEN 6 *C* = WEEK'S WORK.

Mason and man.		Plumber.		Joiner.		Plumber and man.		Bricklayer and man.		Labourer to artisan.		Digging, hedging or ditching.		Women's ordinary work.		Lathrending, *m*.		
s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	
5	5½	7	2½	7	0	10	7¾	10	0	4	0	4	7	1	11¾	2	8	1583–1592
5	6	7	5¼	7	3	12	5	10	0	4	0	4	5	2	0½	2	6	1593–1602
5	6	7	0	7	0	10	1	10	9½	4	0	4	10½	2	6	2	6	1603–1612
1	2½	8	2	7	4	13	1¼	10	2¾	4	0¼	4	10¾	1	11	2	6	1613–1622
1	11¾	8	8¾	.....		13	6¾	11	0	4	4¼	4	9	2	1½	2	6	1623–1632
2	0	8	7	8	0	13	6	11	8¾	5	0	5	6½	3	0	2	4¾	1633–1642
3	9	10	4	10	0	17	0½	14	1¾	5	10½	5	9½	2	6	2	7¼	1643–1652
5	8½	10	10½	12	0	19	0	17	7	6	0	6	0	2	6	3	2	1653–1662
5	11¾	12	9	.....		18	0	13	0	6	1¼	6	1¾	3	0	2	7¼	1663–1672
5	1	15	6	13	5½	30	0	23	3	6	3	6	6½	.....		2	6	1673–1682
2	10	18	0	15	2	26	0	27	6	6	1¼	7	1¾	.....		.....		1683–1692
5	0	16	8½	.....		26	6	25	0	9	2¼	6	8¾	2	3	3	5¼	1693–1702
1	1¼	7	10¼	7	3¾	12	6½	10	7½	4	2¾	4	10	2	3	2	6¼	Average, first 60 years
3	2¾	14	0¼	12	7¾	22	9	20	1	6	7¾	6	4¾	2	6¾	2	8¾	Last 60 years

CHAPTER XXIV.

Sundries.

The collection of sundry articles contained in vol. vi. pp. 574–610 is very various in character. It is more copious, considering the narrower limits of the enquiry, in these two volumes than in any two which have preceded them, for though the tables in the third volume (pp. 544–582) occupy rather more space, it will be remembered that that list embraces the evidence of 182 years, the present of 120 only. But as we more nearly approach modern times, the evidence on the principal objects which are illustrated by the facts which have been collected becomes more copious, and residual objects, which do not need separate treatment, though they may have deserved it at an earlier date, become more numerous, and, as I hope to be able to show, more suggestive and instructive. It will moreover be found that some of the material which, as facts accumulated, I deemed to deserve a separate examination, are further illustrated in the present collection. This is particularly the case with minor agricultural products, of which I did not at first imagine there would be sufficient evidence to justify a special investigation. In a work of this kind there is inevitably a residue of facts, and sometimes a part of this residue becomes considerable enough to be treated as a principal topic.

I purpose in this chapter to divide the information which I have collected into groups, and to handle the facts which come or appear to come under separate heads, in so far as such a

classification is possible. Thus there are some entries which can be referred to agriculture and cognate occupations, though unfortunately evidence on this subject is scanty and early. Next, there are prices of articles used in building, which are as essential to finishing a house as the material of which it is constructed. Then there are the furniture and appliances of the stable, of the kitchen, of the brewhouse, the hall or dining-room, the library, and the chapel. There is also the furniture of the bed-room, and of private apartments; the price of such articles of clothing as do not come under measured quantities of linen and cloth, of household and kitchen necessaries, of arms, and finally of residual articles, which cannot be conveniently bought under any of these groups.

AGRICULTURAL IMPLEMENTS AND MATERIALS. Some few persons in the early part of the period cultivated their own land. Such was the case with Shuttleworth at Gawthorp Hall, perhaps with Lords Spencer and Pembroke, with Cranfield and with D'Ewes. But such accounts, if they were kept, which would give evidence as to how the yeomen and tenant farmers cultivated their holdings, have absolutely vanished. I know infinitely more about the details of agricultural operations in the thirteenth and fourteenth centuries than I do of those particulars in the seventeenth.

In 1599 occurs an entry of a plough, bought by Lord Pembroke at 2*s.* In 1588 the same personage bought one share at 11*d.*, three others at 1*s.* each, and a dozen plough-tips at 2½*d.* each. In 1606 a plough-share is bought at 2*s.* 2*d.* These plough-tips, probably the same as the clouts of an earlier age, are bought by the latter name in 1583 at 3*s.* 4*d.* the dozen, and under the name of tips at 3*s.* the dozen in 1587, and 2*s.* 4*d.* in 1591. These articles, I believe, were pieces of iron nailed on to those parts of the plough which were most exposed to wear. In the same early period are two entries of coulters at 2*s.* and 1*s.* 6*d.* In 1629 dung is bought at 1*s.* 3*d.* the load, and in 1649 pigeons' dung, a highly valued manure in the seventeenth century, which is frequently commented

on by writers, at 6*d.* a bushel. Malt-dust is also bought for manure in 1620 at 2*s.* a quarter.

In 1584 a gang of harrow pins cost 2*s.* 4*d.*, and in 1588 a set of the same kind of pins is priced at 2*s.* 6*d.* The high cost of iron discouraged the use of metal pins when the ground was stony.

Spades, apparently used for the garden, are found in sixteen years. They are generally bought by the colleges. The price varies from 1*s.* to 3*s.* 4*d.* Sometimes they are mere wooden frames with an iron cutting edge[1]. In the earlier time they cost from 1*s.* 3*d.* to 1*s.* each. Later on they generally cost 2*s.* 6*d.* In 1668 a spade and rake together cost 6*s.*, and as a rake is seldom more than a few pence in value, it is likely that both these articles were of the best workmanship and made of iron. The earliest entry is of a turf-spade at 7*d.*

Scythes are found in fourteen years. With one exception, the price is very uniform, early and late, never under 2*s.* and over 3*s.* But in 1681 Oriel College gives the high price of 6*s.* 1*d.* One of the latest entries is also one of the cheapest, a grass-scythe in London (1699) at 2*s.* Sickles are found in 1599 at 8*d.*, and in 1657 at 9*d.*

The most expensive part of the husbandman's appliances was the cart or wain. The cost of iron seems to have induced the continued use of unprotected wheels, which are found in seventeen years, and were as I conclude used in this form, as I do not discover that the purchaser procured the necessary irons and nails. The price of a pair of wheels in this form is 11*s.* or 12*s.* in the earlier part of the period, and from 14*s.* to 24*s.* during the first half of the seventeenth century.

The difference between shod and unshod wheels is illustrated in 1599. Lord Spencer pays 15*s.* 8*d.* for a pair of wain-wheels, i. e. plain wheels, and Shuttleworth in the same year gives 46*s.* 8*d.* for a pair of shod-wheels. In 1610 King's College pays 15*s.* for a pair of new wheels, and 42*s.* 2*d.* for the tire to them. In 1613 four new wheels, no doubt with tires, are bought for

[1] In 1602 Lord Spencer buys spade irons at 1*s.* each.

89*s.* 5*d.*, and in 1626 a pair of cart-wheels, no doubt similarly protected, cost 47*s.* In 1630 a single cart-wheel with tire and nails is put at 63*s.* 4*d.* In 1610 wrought iron was 4*d.* a pound, and at this estimate the tire to the pair would have weighed 126½ lbs. In 1585, again, a wain, said to be iron-bound, costs 59*s.*; in 1587, a wain, not thus distinguished, is bought at 20*s.* In 1583 a new shod-cart costs Lord North 40*s.*, in 1594 a new cart is bought by King's College for 26*s.* 8*d.*, and is no doubt a plain cart, while the brewhouse-cart of 1688 at 55*s.* 6*d.* purchased by Winchester College is no doubt protected. In 1667 the same place had bought a new waggon with wooden wheels for 44*s.* Cart-clouts are occasionally bought at 4*d.* or 3½*d.*, and probably weighed about a pound and a-half. In 1591 they are bought by King's College, in 1601 by Lord Spencer. Now in 1621 the latter buys the same articles, 128 lbs. weight in all, at 2¾*d.* a lb., or 25*s.* 8*d.* the cwt., raw iron ranging from £14 to £15 10*s.* the ton. In 1672 the iron tire to wheels, almost certainly a pair, cost Master 3½*d.* a pound, and weighed 103½ lbs. In 1669 the weight was 82 lbs.; in 1670, 104 lbs. In 1672 King's College bought two hind wheels to a carriage, the irons of which cost 42*s.* At 3½*d.* a pound, this would give 144 lbs. of wrought iron for a pair of wheels. But at Cambridge wrought iron generally costs 4*d.* a pound, and the resultant quantity would be 126 lbs. If therefore the husbandman of the seventeenth century wished to purchase a two-wheeled cart in the later half of the century, it would cost him about 70*s.*; if he wished for a four-wheeled waggon, he would have had to pay about 128*s.*

Shovels are found far more frequently, in forty-four years of the period, between 1583 and 1686. The price varies greatly, and no doubt the variation is in part due to the extent to which the article was protected by an iron or steel plate. In 1583 a shovel costs All Souls College 6*d.*, in 1584 King's College gives 1*s.* 6*d.*, while New College pays 4*d.*, the lowest price which I have registered. In 1587 King's College gives 8*d.* for an iron-shod shovel. In 1590 the Rochester dockyard buys shod

shovels at 5*d.*, and in 1595 and onwards steel shovels at 1*s.* 4*d.* In 1613 All Souls College gives 2*s.* for an iron shovel, which however may be a fire shovel, for shovels at Cambridge are at 1*s.* 2*d.* From this time the shovel rarely falls below 1*s.*, and is often found at 1*s.* 6*d.* From these prices I conclude that the wooden frame was generally protected, though in varying degree. Many of these shovels were employed for domestic purposes, but some are clearly for agricultural use, and there is no reason to conclude that the price of the latter differed from that of the former.

Corn was constantly stored and always carted in sacks, the sack almost invariably containing four bushels. In 1583 Lord North gives 3*s.* 8*d.* a-piece for two new sacks, a price which I do not find reached again for over ninety years. In the next year he gives only 1*s.* 10*d.*, and it is quite possible that by an error in the account the price given for each sack is what was paid for the two. Most of my entries come from Eton, where the price gradually rises from 2*s.* and 2*s.* 6*d.* to 3*s.* and 3*s.* 6*d.*, the later prices being in the dear years of 1645–1650. In 1675 Winchester pays 3*s.* 10*d.*, in 1679 3*s.* 6*d.*, but in 1689 only 2*s.* 4*d.* In 1699 sacks at Foxcomb in Hants are at 2*s.* 8½*d.* The average price for the whole period, taking the first entry as corrected, is nearly 2*s.* 7¾*d.*

There are a few entries of rakes and pitchforks, the former certainly wooden, at prices ranging from 3*d.* to 6*d.*, the latter at about 7*d.*, these being no doubt iron-tipped, or even made entirely of iron. Hay-forks, also wooden, are at 3*d.* A hoe found in 1666 costs 1*s.* A 'ligo' in 1657 should be a mattock, but the price (3*s.*) seems too high. It is bought at Winchester, where there is much pedantry in the accounts. In 1610 a churn is bought at the cost of 7*s.* by the Archers, and milk-pans, in the early part of the period, cost from 3*d.* to 9*d.* In 1599 Lord Spencer gives 3*d.* for twenty-six hog-rings. They were probably about the same size and weight as the largest lath-nails.

Tar is constantly bought by Shuttleworth for his sheep.

There are purchases of tar for ship stores, by the last, on which I shall comment presently. Shuttleworth buys it once by the firkin and once by the barrel, the first of these entries stating that the barrel was of sixteen gallons. In 1626 it is also bought by the barrel at Mendham. The price of ten entries by the gallon, between 1590 and 1620, varies from 9*d.* to 2*s.* The demand for the article may have been uncertain, and the supply, still from Norway, have been more uncertain, though the growing use of it for shipping must have stimulated the latter. In the cheapest of the ten years, twenty gallons are bought. But four years later, fifteen gallons are purchased at 1*s.* 2*d.* A pair of shears cost 4*d.* at Worksop in 1598.

In 1583 a pair of garden-shears costs 2*s.*; in 1587, 1*s.* 3*d.* But in 1609 it costs 1*s.* 6*d.* to steel a pair of garden-shears.

In a few of the earlier years hatchets are bought at from 1*s.* to 1*s.* 3*d.*, and also in the first forty years axes at prices between 1*s.* 1*d.* and 2*s.* 6*d.*, the highest price being found in some of the earliest years.

There are ten entries of the price of beehives from the beginning of the period till close on its conclusion. The first four are from Shuttleworth's accounts, the price being very low, from 1½*d.* to 2*d.* But other purchases are much higher, the lowest being 8½*d.*, the highest, in 1599, 1*s.* 1*d.* They are bought in 1701 at 10*d.* by the Foxcomb yeoman. Such are the scanty notices of what may be conceived to be articles bearing on the economy of agriculture. But though the information is slight, nearly all agricultural implements are named, and it would not be impossible for one to construct a table of the prices at which the seventeenth-century agriculturist would have to supply the exigencies of his calling.

BUILDING CONVENIENCES. Most of the materials employed in building have been already commented on among the topics treated of in the nineteenth chapter. There still however remain some articles, which corporations and private individuals had not allowed to be put into a contractor's bill,

but purchased themselves for their own use, and at their own discretion.

The poles used for erecting a scaffold are included in the various building materials, but two essentials to building are contained in the Sundries. The temporary floor of the scaffold was constantly constructed of hurdles, and the stages are reached by ladders. Hurdles are of various prices; the highest is at 10*s.* the dozen, the lowest at 3*s.*[1] In course of time it seems that the stages of a scaffold were constructed of planks.

There is an extraordinary variety in the price of ladders, as indeed might have been expected, for the straight poles required for the sides of a long ladder were by no means of common growth. The highest price which I have found is in 1644, when S. John's College, Cambridge gave 82*s.* for 'a large long ladder.' In 1696 the same society gives 50*s.* for 'a long ladder.' None of my other entries come near these in price, for of the remaining sixteen, one is as low as 1*s.*, and the highest is 26*s.* But even those of comparatively low price are of considerable dimensions. In 1606 New College pays 11*s.* 6*d.* a-piece for two ladders, each 46 feet long. In 1609 S. John's gives only 5*s.* for what it calls a long ladder. In 1639 Eton pays 13*s.* 6*d.* for 'a long ladder'; and in 1640, 5*s.* for a twenty-feet ladder. In 1658 the length of the ladder for which New College gives 26*s.* is not stated. In 1675 a ladder, said to be 'folding,' costs 14*s.* I therefore conclude that the ladder of 1644 must have been of peculiarly strong construction. As regards that of 1696, the College was then engaged in building the third quadrangle, the foundations of which were laid in the river.

In order to secure the foundations of this quadrangle on the river side, the College bought a large quantity (forty bushels) of hydraulic lime, then and long afterwards called tarris or tarras. The composition of this lime was described by Vitruvius, the basis of it being the puzzolano of Italy. I have seen the same material referred to in the Papers of Pepys in

[1] Some of these hurdles were certainly bought for sheep.

the Bodleian Library (Rawlinson, A) as necessary for the construction of the Admiralty docks at Chatham and Deptford, and actually purchased for repairs by the City of London in 1630 at 4*s.* the bushel. At this time I believe the sole source of hydraulic lime was Italy, the German material not having been yet discovered, still less the lias product of the Midland Counties. Masons' buckets were bought in 1623 at 9*d.* each.

A pump was a rather expensive affair. In 1584 it cost 41*s.*; in 1629, 40*s.* 8*d.*; in 1632, 46*s.* In 1650 however King's College pays 24*s.* 6*d.* for this convenience, and Oriel College 30*s.* But in 1698 Winchester College, near enough one would think to water, spends 98*s.* 6*d.* on one antlia, and in 1699 84*s.* on another.

Glue, employed for carpenters' and joiners' work, is still purchased, from the first year till nearly the last, at intervals. The earliest price is 3*s.* 6*d.* a dozen, and it rapidly rises to 6*s.* at the beginning of the seventeenth century. It drops twice to 5*s.*, but in 1654 rises to 8*s.* But the next year it is again 6*s.*, and it remains at this price till the last entry in 1697. Pitch was also employed, especially to caulk decks of ships, and though not so obviously related to building materials, may be discussed here. The price varies from year to year, from 1*s.* 5½*d.* the dozen to 5*s.* It does not tend to increase in price as time goes on. It is generally bought by the pound, but occasionally by the stone. It is purchased by the dockyards in large quantities, and here by the last.

Among implements are hand-saws, purchased, generally by the dockyards, at from 4*s.* to 6*s.* the dozen, between 1589 and 1630; sawyers' saws, once at 2*s.*, and stone saws, at prices ranging from 5*s.* to 1*s.* 4*d.*, the difference of price being in all likelihood due to the size. In 1594 a 'new gimlet' is bought in London for 2*s.* 6*d.*, the first occasion on which I have noted the use of this tool, and in 1600 a file at 3*d.*[1]

But the most significant of these purchases is that of locks.

[1] Some significant illustrations of the difference between roofing and building lead are to be found in the building accounts of Westminster Abbey; Addenda, vol. vi.

They are of all kinds and prices, the purpose of the article being constantly expressed. I have found them, with the accompanying keys, as high as 29*s.*, while a commoner kind is entered at 4*d.* They are quoted merely as locks, and as stock locks, as hanging locks, as gate locks, as settle locks, as padlocks, as horse locks, as double stock locks with back spring, and as pull-back locks. There are very few articles which are more suggestive than these conveniences, and it may be worth while to go through them with some detail. Our forefathers locked everything up, and took elaborate pains to prevent any persons, besides those who had the right to enter, from tampering with what they thought it discreet to put under lock and key.

The highest-priced article, referred to above, is a lock and keys for the plate chest of Oriel College. These keys were probably three or four, and were in the custody of the Provost, the treasurer, and some other officials, whose presence was necessary in order that the chest might be opened. In 1692 Winchester College gives 10*s.* for a lock to the garden. In 1593 a lock to a door costs Magdalen College 8*s.*, and the same price is paid for a lock and key by New College in 1622. In 1630 All Souls College gives 7*s.* 4*d.* for a lock to a chamber. In 1670 Winchester College pays 6*s.* for a great lock, and in 1671 7*s.* for two new locks and keys. In 1624 the churchwardens of S. Mary Bredman, Canterbury, pay 12*s.* 8*d.* for a lock to the church door.

Locks of a more or less expensive kind were put, principally by College authorities, on the pantry, the buttery, the cellar, the tennis-court, the vestry, the closet, the larder, the workhouse, the kitchen, the garden and the alms-box. Besides those of which note is taken, locks, even now in use, were put to the doors of the muniment-room or treasury, and to the chests and hutches where money and deeds were kept. One elaborate iron chest with its lock and two padlocks was presented as a money box by Bodley to the Curators of his Library, and is still preserved.

Locks of various kinds are found in seventy-two of the years dealt with in these volumes, and very often there are several entries from the same place in the same year. Hanging locks are perhaps padlocks, the latter name being occasionally found. A hinge lock is most likely what was a common kind some years ago, in which the key drew out a screw which was when the lock was used turned into a double nut in two of the joints which composed the lock. Such were probably also gate locks. Horse locks, found early and late, are it seems contrivances to fasten a horse to a chain in pasture. The pull-back lock of 1700 is most like a door lock which can be opened from the inside by the hand but needs a key without.

The householder of the seventeenth century also bought hinges, not indeed so frequently or regularly as his ancestor or predecessor did, but in sufficient numbers for illustrating the custom and the price. Most of these articles are cheap and under a shilling a pair. But All Souls College gives 2*s.* 6*d.* for a pair to the Warden's parlour door; and in 1588, 5*s.* 10*d.* for a pair for the windows. In 1697 Caryll of Harting pays 6*s.* a pair to be put on the hall door. These hinges to principal entrances are often very elaborate and enduring. Those of many college gates and hall doors are frequently coeval with, or not much later than, the foundation.

Sometimes, in accordance with the growing disposition to purchase work which has already been finished by the workman, doors are bought. Thus in 1611 New College buys a new cellar door. In 1626 Corpus Christi College gives 50*s.* for a new carved door to the hall, and this is probably still in use; and in the same year, New College pays the same sum for a new door to the library.

There are a few entries of the price of paint. Of these the commonest and cheapest are Spanish white, almost always at 1*s.* the dozen lbs., but once at 2*s.*, and red ochre, generally bought by the hundredweight and always at 9*s.* 4*d.*, once by the bushel at 12*s.* 2*d.* Another cheap paint or wash is called 'colour' only, and is bought at Eton. White lead is at 7*d.* a

pound in 1604, at 6*d.* in 1634, and at 3*d.* in 1687, the last purchase being made in London. Red lead is 2½*d.* the pound in 1604, 4*d.* in 1634, and 3*d.* in 1687. Flurry is priced at 4*d.* the pound in 1604, and Umber at 6*d.* in 1634. Vermilion is the most expensive of colours. It is bought at 6*d.* the ounce in London in 1634. Spanish brown is 16*s.* the hundredweight in 1684. Stone blue, at 3*s.* the pound in 1698, is also bought in London. These paints, as now, are mixed with linseed oil, which I find at 4*s.* a gallon in 1634, at 3*s.* in 1684, and at 2*s.* 4*d.* in 1687, at the same place. With these paints may be associated books of gold-leaf, purchased by Lord Spencer in 1602 at 2*s.* each, by Westminster Abbey at 3*s.* and 5*s.* in 1700, and still more extensively in the same year by the hundred at 12*s.*, and called thick.

THE HALL. This, with the kitchen, its appendage, was the most necessary and invariable part of the house, whether it were that of a private family or of a corporate body. It was not only the place in which the whole society or household took their meals together, but to which they resorted at all intervals of occupation. Generally in the centre of the hall was the circular hooped grate, heaped with burning charcoal, the fumes of which escaped through the roof. At the further end of the hall, that is at the remotest part from the doors, was the dais or raised floor on which the high table was placed, at which the fellows in Colleges and the master with his wife and children in private families took their meals. In the body of the hall and ranged by the walls were the several tables with their forms or stools at which the inferior members of the college or the dependants of private families, all ranged exactly according to their degree, were seated. Sometimes there was something higher than the high table, where the head of the society dined with the principal officials, or those officials had a table to themselves, distinguished by better appointments, finer linen, more abundant condiments, and plate. At one end of the high table and on its own stand was placed a basin and ewer, apparently without soap, but

with a long jack-towel on a roller, at which the fellows made their scanty and occasional ablutions. For some time it appears that the occupants of the high table did not enjoy the luxury of chairs, but sat, like the juniors, on forms, settles, or stools, though the form was probably in their case backed.

The walls of the hall were decorated with a few pictures, in the colleges with those of the founder, when these could be procured, or sometimes imagined. Such were the painting, framing and gilding of the pictures of Chicheley and Waynflete by New College for the modest sum of £3 in 1662. These were imaginary portraits, except in so far as the monuments of these prelates supplied the hints for the artists, for there do not appear to have been any English painters in the fifteenth century, though foreign artists settled here in the sixteenth and seventeenth. But in 1626, New College paid £4 for a portrait of the Bishop of Bath and Wells[1] by Urecubury, an artist whom I conceive the New College bursar has saved from total oblivion. So after Master married in 1665, he paid £6 to a Mr. Adolphus for portraits of himself and his wife in 1670, and a further £2 10*s*. for his own 'picture in little.' In wealthier houses and colleges part of the walls of the hall, below the lights, were wainscotted or decorated, perhaps permanently, perhaps only on state occasions, with tapestry, such as that which in 1613 Robins devised to Eton.

The high table was spread with pewter dishes and plates in early times, and in some places with the better sort of trenchers, called Flanders trenchers, and bought by the Oxford and Cambridge Colleges. In later years they had 'new-fashioned plates.' But the inferiors had common trenchers only, made of square pieces of beech board. For a long time the guests were not, it seems, supplied with knives, still less with forks, each person having his own knife. Besides his plate or trencher, it would appear that saucers were put on the

[1] This is no doubt Arthur Lake, Warden from 1613 to 1616, and Bishop of Wells from 1616 to 1626. It was probably painted after the Bishop's death.

table, to hold the broth or gravy of the meat which was served up.

The meat, or on fish days the salt fish, was served in messes called fercula, of which one went to every three persons, the ferculum being calculated at nearly five lbs. of beef, reduced in weight of course by boiling. The only adjunct of this meat was bread, served from a large bread-basket, the cost of this piece of furniture being an index of its size. Beer was served at the lower tables in black-jacks, i. e. in leathern jugs; to the occupants of the higher tables in silver mugs, called oxeyes at Corpus, terns in other places. It is probable that till the confiscation of the Oxford plate by Charles, and the intercepted confiscation of the Cambridge plate by Cromwell, the better-off colleges, and even those whose resources were scantier, were tolerably well supplied with plate. Oriel College, which was certainly not rich, would hardly have given 29*s.* for a lock to its plate-chest if it had not possessed a store worth precautions. A present of plate was a common gift, and when the student was of superior rank or fortune, it became an habitual tax. But in 1585 New College buys some small silver spoons, and the price (8*s.* 6*d.*) shows that they must have weighed less than an ounce and a half; and in 1603 Oriel College buys a crater argenteus, probably a bowl for spiced wine, for 44*s.* 6*d.*

On ordinary days, it is probable that there was no material difference, either in quality or quantity, in the viands served at the high table and those supplied to the inferior members of the household. The principal meal of the day was taken, as far as the guests were concerned, in silence, for up to the Civil War at least it was the custom for one of the members to read the Bible during meals, the clerk receiving his maintenance in return for the service. There was but little disposition to conversation. The inmates of these corporate houses lived together, by interest or necessity, from the beginning to the end of the year. They were brought together by no feeling of association, and the society was

no doubt distracted by perpetual jealousies and quarrels. Still in 1639, King's College, where according to tradition these feuds were most persistent, purchased in 1639 a new seat 'in laundress yard' for the seniors of the college at a cost of 97*s.* 3*d.*[1]

On gaudies, numerous in the winter season and celebrated on certain saints' days and holy-days throughout the year, the diet was more varied and more generous. Poultry and puddings, spiced meats and game, with abundance of buttered eggs, and in places caudle, were served on these occasions. It seems from the quantities, whose consumption is recorded in the commons' books, that the inferiors of the society were not invited to share in these banquets. The fellows of Winchester College devoured enormous quantities of oysters, and the college accounts, in recording the purchase of oyster knives by the dozen, seem to imply that the beneficiaries of Wykeham's foundation opened their oysters for themselves. Then some friend of the society would send the corporation a buck, and there was a temporary change from the customary beef and mutton of the college table.

I have referred already to the large quantities of wild fowl and rabbits which were purchased for Lord Spencer's table. In a less degree, these are bought for occasional feasts by the fellows of Winchester. Then till the Puritan movement proscribed them, there were occasional visits of itinerant players, and those of the best, in college halls and at the country seats of noblemen. It is known that plays were acted, not in the London Inns of Court only, but in New College and Christ Church halls in Oxford, that Shakspere in his journeys to Stratford-on-Avon halted in Oxford, and very likely took part in the entertainments given by the Company to which he belonged. It is true that the Court was the chief patron of the players. In 1604–5 I find, from an account book of James, that Heming's Company, to which

[1] Here 'sella' must I conclude, from the price, be a seat. There appears to be no memory at King's College as to the site of Laundress Yard.

Shakspere belonged, acted before the Court on All Saints' Day, on the Sunday following, on St. Stephen's, on Childermas, on the 6th and 8th of January, on Candlemas, on Shrove Sunday, Monday and Tuesday, and received £100 for their ten performances. The colleges and county gentlemen occasionally treated themselves to these favourite and frequently intellectual entertainments[1].

On these gaudies too wine was added to the banquet claret and white French wine, sack, Malmsey, and sometimes Rhenish, and even rarer wines. As time went on, tobacco was added to the entertainment, and not infrequently a gross of pipes was purchased. This custom of smoking at the gaudy or election occurs early at Eton.

It is not wonderful that, in so monotonous a life, the fellows of a college betook themselves to study, engaged eagerly in the formal business of the society, looked forward to the progresses, or watched for any opportunity by which they could exchange a dull existence, with a college benefice in the distance, for more active occupation. The head and bursars rode on circuit at least twice, sometimes three times a year. During this time they journeyed at the college expense, visited the principal tenants (who entertained them at a fixed charge or by agreement in their leases, and were likely from motives of self-interest to use them well), and collected their rents. When the roads became unsafe, the fellows went armed; and some of the entries of fire-arms which one finds in the college accounts were purchased for defence during the progresses. On their return the arms were displayed in the college hall, as those of the county gentleman were hung round the principal apartment of the mansion.

Towards the end of the period before me greater luxury crept in. The fellows appropriated a common or combination room, and furnished it with an eye to comfort. It is said that the custom began with the Restoration. But

[1] Shakspere's plots were taken from books in common use. Familiarity with the story aided a play in which there could have been no scenic effects.

in 1651 All Souls College gave £13 for a Turkey carpet. This term, originally applied to the covering of a table, began to be used for the covering to a chamber floor. The All Souls College purchase was certainly made for the fellows' common room.

In the first year of this period King's College buys two fair table planks for the hall. These are to be put on trestles, and may have been for the inferior members of the foundation. But they cost 30*s.*; and in 1587 a new table obtained by the same society costs 40*s.* In 1590 Corpus Christi College gives 41*s.* for a high table in its own hall, and a new table at All Souls College in the same year is obtained for 13*s.* 4*d.* In 1610 All Souls College gives 76*s.* 4*d.* for a walnut drawing-table; and in 1614 a wainscot-table, no doubt in this case a high table, costs £13, the largest price which I have found. Again, King's College buys a drawing-table of walnut in 1615 for £4. In 1618 the Sub-warden's table at All Souls College costs £6 12*s.*, the Sub-warden in this society, as in others, having a table and companions to himself. In 1619 New College gives 58*s.* for a drawing-table. Two hall-tables with two kitchen-dressers are bought by Corpus Christi College (here no doubt for the scholars of the foundation) for 100*s.*, which is probably about 25*s.* each. In 1640 King's College pays 35*s.* for a new table, and in 1652 the same price. In 1701 All Souls College gives 30*s.* 3*d.* each for two tables. These are all or nearly all the high-priced tables which the accounts record, and all are in my judgement intended for the dining hall. There is only one table of considerable price which appears to be for private use, and this is one bought in 1619 for Mr. Edwards by New College at a cost of 48*s.*

There are many cheaper tables, frequently designated as round, which appear to be bought for the library, for private chambers, or for some convenience in the hall for the fellows, as for instance a stand for the basin and ewer. These round tables vary in price from 6*s.* to 20*s.* A side table to hold the washing apparatus in 1606 costs 9*s.* 8*d.* Other tables, which

are not further designated, cost from 3*s.* 4*d.* to 25*s.* Two tables called little are at 10*s.* each in 1632 and 1636. Both are bought by King's College, and the latter is called wainscot.

Basins and ewers, purchased for common use in the hall, are found seven times, at prices ranging from 6*s.* 8*d.* to 13*s.* They were probably metal, most likely latten, perhaps brass. Twice a ewer is bought alone, at 3*s.* and 3*s.* 6*d.* At last, in 1679, perhaps as a concession to growing refinement, Eton College put a pewter cistern in the hall at a cost of 45*s.* for the convenience of the fellows, and in 1681 two stone cisterns for the scholars, no doubt for open-air ablutions, for which it paid 75*s.* 10*d.* Up to recent memory, the Winchester scholars washed at an open-air cistern, to which they gave the name of Moab.

Common trenchers, which occur regularly in the accounts till a little after the Restoration, and in one place till nearly the end of my period, are generally from 2*d.* to 6*d.* the dozen. I have found them once at 8½*d.*, once at 8*d.*, once at 7½*d.*, once at 6½*d.* But I suppose that these articles were of superior quality to those ordinarily purchased. That rise in prices which is generally noticed after the first quarter of the seventeenth century is noticeable here. Up to 1601 they are occasionally as cheap as 2*d.*, during the next twenty years they are commonly at 4*d.* Then they rise to 5*d.* as a rule. Between 1583 and 1662 they occur in twenty-one years. They were no doubt beechen squares, as they remained till recent memory at some of our public schools.

It is only in the seventeenth century that I find what are plainly chairs for the head and fellows at the College dining-table. The first entry is in 1609, where a great chair is bought for the Provost of King's College at a cost of 18*s.* 8*d.*, and a little back chair for 8*s.* These however are possibly for the private sitting-room of the College head. In 1626 a Russia leather chair is bought by New College for 18*s.*, but this again is I believe for the Warden. But in 1639 six chairs are bought by Eton

College at 5*s.* each. In 1647 six are bought by Winchester College at 9*s.* 6*d.* each. In 1648 New College buys one leather chair at 10*s.*, five at 5*s.* 3*d.* In 1649 two Russia leather chairs, also at Winchester College, are at 15*s.* each, twelve smaller at 8*s.* 6*d.*, and six sedilia at 5*s.* These, as the cost of carriage indicates, probably come from London. In 1650 New College buys five Russia leather chairs at 7*s.* 6*d.* In 1654 Master gives 30*s.* a-piece for four Russia leather chairs. In 1657 Cambridge begins to buy the new article of furniture with two Russia leather chairs at 16*s.*, and fourteen of less size at 8*s.* In the same year, chairs cost 13*s.* 6*d.* at New College, which also buys a dozen at 7*s.* 10*d.* each in 1659. In 1661 red leather chairs cost 7*s.* 6*d.* at Winchester, and in 1662 calf-leather chairs 4*s.* 9*d.* at New College.

In 1663 King's College buys a dozen leather chairs at 6*s.* 8*d.* each, and New College others at 8*s.*, 9*s.* 6*d.*, 7*s.* and 5*s.*, while Winchester College gives 18*s.* for red leather chairs. In 1665 Russia leather chairs cost 8*s.* 6*d.*; in 1668, 5*s.* In 1670 Winchester College buys two dozen at 96*s.* the dozen. In 1671 Eton College buys twelve chairs and hangings at 22*s.* 8*d.* each. In 1674 New College buys fourteen Russia chairs at 4*s.* 5*d.*, and in 1679 Eton College buys leather chairs at 6*s.* 6*d.*, All Souls College at 7*s.* 1*d.* In 1612 a chair at 2*s.* is certainly for a bedroom, and one in 1624 at 10*s.* is probably of the same kind. Joint-forms are found in 1592 and 1665 at 3*s.* 4*d.* and 2*s.*; joint-stools in 1612 and 1646 at 1*s.* 6*d.* and 1*s.* 8*d.*; and wainscot-stools at 26*s.* the dozen in 1595.

A bread-basket, of large size or of superior construction, was part of the regular appointments of the hall-table. I have found it once as cheap as 1*s.* Generally it is from 2*s.* 6*d.* to 3*s.* 6*d.* So again, near the great circular charcoal-grate was a charcoal-basket, holding from three to four bushels, and costing from 8*d.* to 2*s.*, the commonest price being 1*s.* It is probable that to prevent the escape of fine charcoal-dust, these coal-baskets were woven as closely as those used for bread, though they may have been of coarser or unbarked willow-work.

In my earlier periods I found no note of water and drinking glasses. In the present period they are far from uncommon. The first I have found is in 1585, under the name of water glasses, and purchased by Lord Pembroke at 4*d.* each. In 1587 Lord Spencer buys the same article at a little under 2½*d.* each. In 1595 Lord Pembroke buys drinking glasses at 2*d.*, in 1600 Shuttleworth at 1½*d.* In 1602 Lord Spencer gives 1c*d.* for Venice glasses, 2*d.* for green glasses. In 1605 Shuttleworth pays 2*d.* for drinking glasses. In 1613 Mrs. Archer pays 6*d.* for a single glass. In 1614 King's College begins to buy them at 9*s.* the dozen, and in 1622 Lord Spencer gives 3*d.* each. In 1627 the owner of Mendham gives 8*s.* a dozen. I do not find them again till 1660, when New College gives 9*d.* each for 'crystal' glasses. In 1663 glasses cost 1*s.* each in London, the highest price which I have found. In 1667 All Souls College buys them at 8*d.*, in 1669 at 7*d.*, in 1680 at 8*d.* In 1686 they are at 3*d.* at Eton. In 1698 ale-glasses are at 8*s.* the dozen, wine-glasses at 5*s*, and jelly-glasses at 12*s.* By the end of the period the modern fashion had been nearly developed.

The kinds and material of candlesticks, and the object for which they are purchased, differ exceedingly. Omitting for the present those which were purchased for the chapel, and considering those only which were employed for the hall, the materials are silver, brass, pewter, tin, latten, iron, and wooden. Once a candlestick, probably a row of sconces or sockets round a brass or iron frame, is bought with a pully, at 8*s.* Candlesticks are found in forty-one years.

A pair of silver candlesticks is bought, perhaps for the Warden of New College, in 1684, at a cost of £9 1*s.* 8*d.* They probably weighed from 30 to 35 ounces. Brass candlesticks are of very various prices. I have found them as high as 7*s.* and as low as 9*d.* They are at the higher price at Oriel College in 1585 and in 1664, having been purchased for the altar in the latter year. In 1610, when the lowest price is

recorded, they are purchased by All Souls College for the hall, and could have been little more than sconces.

In 1658 a pair of large candlesticks (the material not being stated in the accounts, but) probably of brass, cost King's College 27*s.* 6*d.* But the commonest price of brass candlesticks is from 2*s.* 6*d.* to 5*s.*, of pewter about 1*s.* 7*d.*, of latten from 8*d.* to 1*s.* 8*d.* Tin candlesticks are from 8*d.* to 1*s.* 8*d.* Those of iron are from 6*d.* to 10*d.* each, and wooden ones 1*s.*

It was in the hall, the chapel, and the offices that candles were consumed, and therefore the hall was the common sitting-room of the society when the days grew short and artificial light was necessary. I do not assert that the whole stock of candles purchased by these corporations was consumed at the college rooms and offices, for the members of the society had the opportunity of purchasing from the college store for their private apartments, as they had of buying other articles which were kept in stock, the price obtained for these extras being duly entered among the receipts of the College, and being known as battels[1] in Oxford and sizings at Cambridge, as distinguished from commons, i.e. the regular allowance made to each inmate. Sometimes academical paupers were maintained from a common fund, but assigned to wait on their seniors, when they were called servitors at Oxford. Many persons, who afterwards rose to considerable positions, began their career in this humble way during the seventeenth century, as Mill the Editor of the Greek Testament, Potter Archbishop of Canterbury, and Hearne the antiquary.

There are a few entries of snuffers. I find a pair at Kirtling in 1587 at 10*d.*, another at Eton College in 1624 which cost 6*d.*, another pair in 1635 bought by the owner of Mendham for 10*d.*, three pair by Winchester College in 1648 at 5*d.*, two by

[1] This fact, that battels and sizings were extras, has been a little obscured by batellars and sizars being names given to the poorest or nearly the poorest class of students in the two Universities. But they got this name because they were originally dependants on richer students, who paid for their maintenance, and were charged with this as battels or extras. Thus Master maintained a sizar at his own charge at Cambridge.

All Souls College in 1677 at 1*s.* But in 1632 New College buys a pair for 9*s.*, for the Warden's establishment. This was of course a much more elaborate piece of workmanship than that which was procured for common use.

Generally the fire which was kept burning in the hall in winter-time was charcoal. But in some places, where sea-coal was cheap, grates were procured for the purpose. Thus in 1583 Lord North puts grates into his hall and kitchen, in the former at the cost of 26*s.* 6*d.*, in the latter, under the name of a radell, at 24*s.* 2*d.* In 1632 an iron grate is bought for the New College Warden at a charge of 9*s.* 6*d.*, probably for a chamber, though it is very doubtful that sea-coal was customarily burnt in Oxford at so early a date.

In 1624 New College buys a fire-fork for 2*s.* 8*d.*, and a fire-shovel and tongs for 2*s.* 6*d.* In 1628 a fire-pan costs King's College 3*s.* In 1639 a fire-shovel is bought by New College for 2*s.* 6*d.* In 1651 a shovel and tongs cost 3*s.* 6*d.* In 1653 a fire-fork is 1*s.* 8*d.*, a fire-shovel 1*s.* 4*d.* In 1654 a fire-pan costs Eton College 2*s.* 6*d.*, and in 1665 a fire-shovel is 1*s.* 6*d.* In 1663 two fire-pans are at 1*s.* 6*d.*, and in 1665 a fire-shovel is 1*s.* 6*d.*

Wood fires on an open hearth were probably as common as charcoal fires, and in the kitchen more common. The burning logs, or faggots or tall-wood, were generally heaped on andirons or dogs. In 1630 a pair of dogs costs 7*s.*, in 1649 dogs with a fire-shovel and bellows cost 11*s.* 6*d.* In 1656 the pair is 8*s.* 4*d.*; in 1664, 5*s.* 4*d.*; in 1670, 6*s.* 6*d.* The price of andirons is more various. In 1601 a pair costs 5*s.*; in 1663, 6*s.*; in 1664, 17*s.* 6*d.*; and a single article 1*s.* 10*d.* in 1667. In 1654 Master gives 12*s.* for his andirons, fire-shovel, tongs, and bellows. But in 1615 All Souls College buys for the Warden a pair of brass andirons at the cost of 80*s.*, and in 1626 Magdalen College purchases two pair of brass andirons, another pair of iron, a pair of tongs, and a shovel for £5 11*s.* 7*d.* together.

Pairs of bellows are frequently bought at different prices,

from 10½*d.* in 1587, the lowest price noted, to 5*s.* in 1667, the highest. In the latter case it is a purchase by Master, apparently for his child's nursery. The ordinary price is from 1*s.* 6*d.* to 3*s.*, and the article does not become dearer at the latter end of the century.

Another very common convenience in the hall is the chafing-dish. With rare exceptions up to the end of the Civil War they are low-priced, from 1*s.* each to 1*s.* 6*d.*, though in 1628 a great chafing-dish is at 2*s.* 6*d.*, in 1631 two brass articles are at 4*s.* 9*d.*, and two in 1632, of which the material is not specified, at 3*s.* 4*d.* In 1658 Eton College gives 7*s.* a-piece for two, in 1668 All Souls College pays 8*s.* for a brass chafing-dish, in 1675 Winchester College 7*s.* In 1686 Eton College gives 10*s.*, and in 1692 S. John's College pays 4*s.* In 1697 and 1698 King's College gives 6*s.* for large brass chafing-dishes. These conveniences were probably brought into halls and chambers in cold weather, either to keep food hot, or to supply additional warmth. They are called *calefactoria* in older accounts.

As stated above, saucers appear to have been supplied at table, especially in places where wooden trenchers were used. They are of very uniform price, described as large and small, the former once at 5*s.*, but generally at 3*s.* a dozen, the latter at from 2*s.* 8*d.* to 2*s.*, most commonly the latter price. In the last year in which they are found, 1645, they are only 1*s.* 3*d.* a dozen. I do not imply that they are discontinued after this date, but after the Civil War began, the particulars of the King's College accounts are not nearly so accurate as they were previously to this event, and these items are merged in minor expenses.

Leather drinking-jacks are found in twenty-six years, from the first of the period, till close on the end of the seventeenth century. The prices are principally from Eton College, and they generally cost from 2*s.* 4*d.* to 3*s.* In 1617, however, Eton College gives 4*s.* 3½*d.* each for three new jacks, but in 1623 again only 2*s.* 6*d.* Between 1629 and 1638 the price is from

3*s.* 6*d.* to 3*s.* From 1640 to 1652 it is from 4*s.* 10*d.* to 4*s.*, though in the first of those years New College gives only 3*s.* 4*d.* for 'a black jack for the choristers.' In 1656, Eton College gives 5*s.*; in 1674, 7*s.* 9*d.*; in 1684, 4*s.* 6*d.*; and in 1697 a drinking-jack costs New College 8*s.* In 1636 King's College pays 11*s.* for a large flagon, and in 1670 Eton College 10*s.* In 1654 Corpus Christi College in Oxford buys black drinking-pots at 2*s.* a dozen. Perhaps a beaded stone-jug at 1*s.* 4*d.*, in 1637, was also a drinking vessel.

It seems that at table each person had his own knife, perhaps his own fork. But in 1601 Lord Spencer bought two dozen forks at 7*s.* 6*d.* the dozen. The purchase of knives by the case or the dozen does not, as far as my accounts are concerned, begin before 1626, when a case costs Eton College 8*s.* 6*d.* In 1629 the same corporation gives 8*s.* 4*d.* In 1641 Caryll of Harting pays 30*s.* for a case, by far the highest price which I have found. In 1633 a 'dozen case knives' costs 9*s.* 6*d.*, and this entry suggests that the dozen and the case were the same. In 1636 the case is 9*s.*, in 1638 10*s.*, in 1644 12*s.*, in 1649 10*s.* 6*d.* the dozen, all these four notes coming from Eton College. In 1652 a case at New College is 14*s.*; in 1656, 10*s.* 6*d.* at Eton College, where it is 12*s.* 6*d.* in 1659. In 1659 Eton College pays 10*d.* each for four knives. In 1661 Winchester College pays at near the rate of 14*s.* 5*d.* a dozen. In 1662 the Eton price is 9*s.*, the Oxford 7*s.* In 1663 Master pays 12*s.* for a dozen with the case. In 1666 the All Souls College Warden has a case at 14*s.* In 1669 Winchester College gives 16*s.* the dozen, in 1670 16*s.* 6*d.* In 1676 All Souls College pays 10*s.* a case. In 1777 a dozen are bought at Eton College for 6*s.*, a case at All Souls College for 7*s.* 6*d.*, and another at 8*s.* 6*d.*, while Winchester College pays 16*s.* But in 1679 All Souls College gives 16*s.*, Winchester College 8*s.* In 1680 Eton College pays 6*s.* 2*d.* for a case, in 1681 Winchester College 14*s.* a dozen, and 7*s.* 6*d.* for forks, and next year forks at the same rate. In 1684 Winchester

pays 15*s.* a dozen. In 1697 Eton College pays 9*s.*, and in 1699, 8*s.* 6*d.* a dozen.

In 1693 Winchester College buys knives and forks together at 36*s.* a dozen, in 1700 Eton College buys 'ivory handled knives and forks' at 20*s.* a dozen, and in 1702 a dozen knives and half-a-dozen forks for 14*s.* 6*d.* In 1630 oyster-knives are 7*s.* a dozen or case, but at Winchester College always 3*s.*

This generally striking difference between the price of table-knives at Winchester and those localities which come within the influence of London appears to me to indicate that new conveniences travelled slowly, and were scarce and expensive in remote places. There was no reason why the fellows of Winchester College should have bought a better article than the fellows of Eton College did. This is again illustrated by the enormous price which Caryll paid in 1630 for his dozen knives. No doubt this gentleman was expensive in his habits, a glance at his purchases in this year fully expressing this fact, but Chichester, where he probably bought, was, like Winchester, an out-of-the-way and decayed town, in which goods were few and the market uncertain.

A Turkey leather table-cover in 1679, at the cost of 44*s.* 6*d.*, may be included in this account of hall furniture.

THE KITCHEN. In a large house or college the kitchen was an important and considerable department. The range which cost 24*s.* 2*d.* in Lord North's kitchen in 1583, and Oriel College 8*s.* 6*d.* in 1631, was a series of iron bars, put so close to the chimney wall as to easily hold the fuel, and over against which was hung the spit, revolved ordinarily by a smoke-jack. The kitchin besides contained smaller fireplaces for boiling and frying, in which, as long as it was cheap and accessible, charcoal was burnt, and after this article became over-dear, though not in Oxford till the period before me was past, wood or sea-coal, with a flue from the fireplace.

The cook's utensils were numerous. He required, in addition to spits and jacks, different kinds of knives, ordinary and special, the latter being known as chipping or chopping,

scraping, voiding, and mincing (the last being by far the most expensive), brass pots, large and small, kettles, large and small, coppers, posnets and pipkins, iron pots, saucepans, stew-pans and powdering-pans, skillets and skimmers, strainers and cullenders, ladles, dripping-pans, frying-pans, gridirons, baking-pans, meat-baskets, flesh-axes and cleavers, forks or flesh hooks, bread graters, and, later on, cabbage-nets and pudding-bags. The pewter dishes, which have been already commented on under the price of metals, were probably kept in the buttery. But the brawn and powdering tubs, in which meat was salted, stood in the kitchen or larder.

The most expensive articles in the kitchen were the large boilers of copper and brass imbedded in brick and mortar, and heated from beneath. But these articles are better treated under the head of brewing utensils, where they were necessary. Some of those articles which are dealt with below may have been for kitchen use, for the accounts do not always distinguish the object for which the purchase was made.

Jacks are found throughout the whole period. The apparatus I presume includes the boards which were turned by the upward current, the wheels and the chains. I have found them six times, the price being fairly uniform. The average is 30*s.* 9¼*d.* A single jack-chain in 1600, when by the way the most expensive jack was bought for the President of Corpus Christi College, is 2*s.* 2*d.* Sometimes the motion of the jack was given by a weight and a series of toothed wheels.

A flesh-axe in 1588 is 2*s.* 6*d.* Kitchen cleavers are found six times, at prices from 1*s.* 4*d* to 6*s.* The first four entries are low-priced, but the last two are high.

Ordinary kitchen knives are, early and late, about 4*d.* each. Occasionally, as in 1591, a far higher price is given, but in this case the entry has omitted to state that it was for a special purpose. Such, no doubt, is the kitchin knife alluded to, which costs 2*s.*

The most expensive of the cook's knives is the mincing knife. It is 3*s.* 4*d.* in 1591 and 1603, 4*s.* and 3*s.* in 1617, 4*s.* in

1622, 6*s.* 8*d.* in 1627, 6*s.* in 1632, 8*s.* in 1675, and 9*s.* in 1694. It was probably a large broad and solid blade, with a handle along the back with which the cook minced the meat in a wooden bowl, or on a chopping-board, priced in 1636 at 5*s.* 6*d.* The scrape knife of 1685, which cost 6*s.*, must have been of the same character.

The chipping or chopping knife is more difficult of interpretation. It is often bought in pairs. If there be a distinction between the two kinds, the chipping knife appears to be the dearest, as I find this knife at 3*s.* 4*d.* in 1585, at 5*s.* in 1639, and at 3*s.* in 1697, while the highest-priced chopping-knives are at 2*s.* 6*d.* But in several years when the two names are found, there is no material difference between the two, the price being occasionally as low as 8*d.* The chopping-knife is once, in 1613, spoken of as a mincing-knife also. But in this year the price of the pair is only 2*s.* 6*d.* It was probably a long and stout kitchen knife, with a good cutting edge and a fair amount of weight in the blade.

The voiding-knife was apparently used for dressing poultry, and would have a sharp point, a slender blade, and a keen edge. The lowest price at which I have found it is 6*d.*, the highest 1*s.* 8*d.* I find it as late as 1672. The average price of sixteen entries is about 1*s.* 6¾*d.* the pair. It is generally found in pairs.

Meat-baskets were used to receive the beef from the butcher, and to hold it. The information as to this article comes principally from King's College, and is found for thirty-two years between 1592 and 1649. The price ranges between 1*s.* 2*d.* and 2*s.* 6*d.*, according to size. The dripping-pan under the roasting meat is of various prices, as low as 2*s.* 6*d.*, as high as 23*s.* 4*d.* The latter is bought by New College, and is described as a new dripping-pan. The cheapest is said to be a latten dripping-pan, and is a Cambridge purchase in 1626. In 1631 a dripping-pan and brass pot are bought together at the aggregate price of 48*s.* 8*d.* Brass ladles vary in price from 8*d.* to 8*s.* 6*d.* The cheapest is bought by Shuttleworth in 1599, the

dearest by Winchester College in 1630. In 1685 a new ladle costs 6*s*. The difference of price is, no doubt, principally due to the size. I find besides a basting ladle at 6*d*. in 1584, and at 1*s*. in 1653, and a filling ladle in 1627 at 5*s*. 6*d*. A broach is 4*s*. in 1587, a spit 6*s*. in 1594. The terms are not, I believe, absolutely identical.

Frying-pans are found at all prices, from 1*s*. 6*d*. and 1*s*. 8*d*. in 1585, the earliest, to 12*s*. in 1698, the latest entry discovered. The last purchase is made by Eton College. The nearest approach to this high price is that given by New College in 1630, where a large frying-pan costs 7*s*. One in 1610, bought by S. John's College, is at 5*s*. Generally they are from 2*s*. to 3*s*.

Meat was generally boiled in brass or copper kettles, in iron pots, and occasionally perhaps in the kitchen copper. Some of these copper and brass kettles, of which the weight is given, have been already commented on. They vary in size, and therefore in price. The most expensive, a great brass kettle bought in London by New College in 1585, costs 44*s*. 3*d*. Now a little time after this copper kettles are sold at 8*d*. a pound in London, and this article at such a rate would have weighed a little over 66 lbs. In 1606, again, another cost 20*s*. 6*d*. But the general price of these larger kettles is from 10*s*. to 14*s*., of the smaller from 2*s*. 8*d*. to 6*s*. 8*d*. But in 1600 a copper costs 50*s*. 3*d*., and a new brass pot 50*s*., a second brass pot in 1613 being bought for 24*s*. An iron pot is 4*s*. in 1608 and 10*s*. 6*d*. in 1698. Boilers are at 9*s*. to 7*s*. in 1628.

Gridirons are found five times. This article is purchased by Corpus Christi College for 4*s*. 9*d*. in 1597, for 1*s*. 8*d*. in 1608 at London, for 11*s*. in 1611, when it is bought by Corpus Christi College, Oxford, for 5*s*. 6*d*. at Eton in 1650, and for 7*s*. 6*d*. at Winchester in 1687. The London purchase must have been of a small article. In 1592 a brass pan is 4*s*. 6*d*. at King's College. In 1597 Corpus Christi College buys a baking-pan for 11*s*. 6*d*., and in 1610 a pan costs 10*s*. at Cambridge. In 1622 S. John's College buys six new brass fish-pans

at 30*s.* 3*d.* each. In 1637 a brass kettle, skillet and frying-pan are bought by Corpus Christi College for 39*s.* 2*d.* together.

Posnets are said to be small pans or pots. I have found them six times in the early period, at 2*s.* 8*d.* in 1587, at 1*s.* 10*d.* in 1601, at 3*s.* 5*d.* in 1602 (when Oriel College buys two together, large and small, for 6*s.* 10*d.*), at 1*s.* 4*d.* in 1603, at 3*s.* 4*d.* in 1619. In 1621 Lord Spencer buys a posnet and basin together for 5*s.* 6*d.* I have three entries of sauce and three of stew pans, all late, the former at 1*s.* 6*d.*, 8*d.* and 3*s.* 4*d.*, the latter at 1*s.* 2*d.*, 11*s.* and 2*s.* The highest-priced of the latter is bought by New College in 1665. In 1664 a flat pan is 1*s.* 3*d.*, in 1688 a brass pan and ladle cost 2*s.* 6*d.*, and in 1611 a skimmer and ladle together are 5*s.* 2*d.* A pot in 1585 is 1*s.* 6*d.*, a powdering-pan in 1645 is 1*s.* 2*d.*, and a brass pipkin in 1614 is 5*s.* 6*d.*

I find also skimmers, skillets, strainers, cullenders and bread-graters. Of the first, nine years supply evidence, but at prices varying from 6*d.* to 6*s.* The last-named at 6*s.* are styled great brass skimmers in the S. John's College account, and the entry of 1609 is also called a great skimmer. In 1627 King's College buys one at 5*s.*, and two brass articles at 1*s.* 3*d.* In 1644 the purchase by S. John's is called great.

Strainers as a rule are cheap, from 10*d.* to 4½*d.* each, between 1585 and 1623. In 1637 one costs 1*s.*, in 1648 and 1650 they are at 3*s.* 4*d.*, in 1698 one is bought for 3*s.* 6*d.* This last is described as a hair-strainer, and I conclude that these articles generally were a wooden frame with a hair-cloth or linen-cloth bottom. In 1647 a brass strainer is 5*s.*

Cullenders are found in fifteen years at prices ranging from 8*d.* to 12*s.* This high-priced article is bought for the Warden of New College in 1653. There is however one bought by the same society in 1632 at 8*s.* 7*d.*, another of brass by King's College in 1641 at 7*s.* 7*d.*, and another also of brass in 1620, bought also by King's College, at 6*s.* 8*d.* On the other hand, a cheap 'colander' is bought at Winchester College in 1665 at

8*d.*, and one at Oriel College in 1608 at 10*d.* These cheap articles I conceive were not very different from strainers.

Bread-graters are also of very different qualities and prices. I have found them at 8*s.* and 7*s.* 6*d.* in 1612 and 1685, at 2*s.* in 1611, at 1*s.* 6*d.* in 1622. Graters, without any indication as to the object for which they are purchased, range from 6*d.* to 3*s.*

In 1628 King's College buys six pie-plates, giving 15*s.* 8*d.* for them, or 2*s.* 7¼*d.* each. In 1648 Winchester College gives 3*d.* for nominally the same article; in 1653 and 1656, 2½*d.* They must have been very different conveniences. The first-named is probably a metal baking-dish. The Winchester entries are very likely earthenware.

Brawn tubs for pickling and saucing flitches of bacon are found not infrequently. The price varies from 1*s.* to 8*s.*, the commonest price being about 5*s.*, or about the average price of a hogshead. The salting of brawn was a common practice at All Souls College. The brawner, for which Corpus Christi College gave 43*s.* 4*d.* in 1617, a price far in excess of any of these tubs, may have been intended for a similar purpose. I do not find the word in the glossaries.

The kitchen kept trays, on which it seems that the cooked provisions were carried into the hall. They are found occasionally from the first year to nearly the last. In 1583, the tray costs 1*s.* 8*d.*; in 1628, 3*s.* 3*d.*; in 1684, 3*s.*; and in 1691, 1*s.* 11*d.*

Pudding-bags from 1681 to 1696 cost from 1*s.* to 8*d.*, cabbage-nets from 1*s.* to 1*s.* 4*d.* A beef-fork is bought in 1665 for 2*s.* 6*d.*, kitchen shovels in 1583 and 1665 at 2*s.* 6*d.* and 2*s.*, a kitchen fire-pan in 1631 at 2*s.*, a kitchen table in 1679 at 3*s.* 6*d.*, and a kitchen lantern in 1612 at 6*s.*

A kitchen rack in 1644 costs 6*s.*, a brass mortar in 1596 12*s.* 3*d.*, a pair of pot-hooks in 1617 2*s.*, and a marble mortar in 1649 3*s.* 6*d.* A lattice to the larder in 1627 costs 4*s.* Dressers for the kitchen, two in number, are included with two hall tables in 1628 under the composite price of 100*s.* But I find a dresser in 1634 at 38*s.* 7*d.*, and another in 1667 at

35*s.* 11*d.* All are bought in Oxford. Again, though I am not clear that it is kitchen furniture, a wainscot cupboard costs 28*s.* in 1580, a livery cupboard 28*s.* in 1614, and one of walnut-tree wood in the same year 26*s.*

Salt-cellars of common metal, tin or pewter, are found at from 3*d.* to 1*s.*, a pair of mustard querns in 1588 at 6*s.* 8*d.*, and a mustard pot in 1587 at 3*d.*

In connection with the kitchen, it may be convenient to refer to what after salt and mustard was the commonest condiment, aleger or malt vinegar, and wine vinegar. The former, used exclusively, at least under this name, by the Cambridge Colleges, and especially King's College, was generally bought by the kilderkin, but sometimes by the barrel; and there does not seem to be any difference, if one can infer from the price, between the two measures. Up to nearly the end of the sixteenth century, aleger is between 4*s.* and 5*s.* 6*d.* the kilderkin, variations in price occurring in the same year and at the same place. From 1598 to 1615, when its use appears to be discontinued, or, as is quite probable, the entry of its cost is merged in other purchases, it is from 7*s.* 6*d.* to 6*s.*, the latter being the commonest price. Bereager, i. e. sour hopped liquor, which was found at an earlier date in Cambridge (vol. iv. p. 618), has entirely disappeared.

Vinegar in the proper sense of the word is found in two quantities, by the gallon (I have calculated by the dozen gallons) from the earlier years till near the conclusion of the period, and by the cask. It is obviously much dearer when it is bought so to speak on draught, than when it is purchased by bulk. i.e. by kilderkin, barrel or hogshead. My first entry of vinegar by the gallon is a purchase by Shuttleworth in 1587, when he buys at the rate of 14*s.* the dozen. In 1604 the Archers buy a small quantity at 3*d.* a pint, or 24*s.* the dozen. In 1609 Shuttleworth again buys at 16*s.*, in 1611 at 20*s.*, describing it as white-wine vinegar. In 1614 Caryll buys white vinegar at 12*s.* the dozen gallons, and red at 10*s.* In 1617 Shuttleworth buys white wine vinegar at 16*s.* the dozen. In

1628 it is bought in London for the Lord Mayor's feast at 24*s.* the dozen. In 1633 the owner of Mendham pays at the rate of 16*s.* There is no purchase from this date till 1674, when New College buys a large quantity of wine vinegar at 24*s.*, and in 1683, besides buying in bulk, other quantities at the rate of nine years before. In 1685 New College buys both wine and malt vinegar, the former at 12*s.* the dozen, the latter at 14*s.* the barrel, that is at about the price of the aleger at Cambridge seventy years before. In 1689, vinegar, not specified as wine, costs 10*s.* the dozen at Cuckfield; and in 1701, a small quantity is bought at Foxcomb in Hants, again at 24*s.*

In 1586 Wharton of Kirkby Stephen buys ten firkins of vinegar at 10*s.* each. In 1589 Lord North gives 6*s.* for a runlet of vinegar, the contents of which are said to be ten gallons. From this date, till near the conclusion of the period, wine vinegar is not purchased in bulk, for it is not till 1677 that New College begins to purchase in large quantities, and then evidently in London. This College buys one hogshead at 70*s.*, and pays for carriage and wharfage (that is by water) 6*s.* 2*d.*; and another hogshead, including the carriage, for 86*s.* 5*d.* These are said to be wine vinegar. The College also buys two kilderkins of vinegar, here plainly malt, at 7*s.*, this being the old price of aleger. In 1680 it buys a hogshead, carriage paid, at 80*s.*; and a barrel of vinegar, plainly malt, and two kilderkins for 13*s.* In 1681 it buys a hogshead of wine vinegar at 67*s.* 6*d.*, and a barrel of beer vinegar at 13*s.* 6*d.* In 1682 it gives 70*s.* for a hogshead and 14*s.* each for two barrels of the inferior produce, purchasing also 10½ quarts for 5*s.* 3*d.* The latter is obviously wine vinegar. In 1689, when the barrel is 14*s.*, and in 1690, 1697 and 1699, when it is 16*s.*, the college is evidently acquiescing in malt vinegar.

THE BREWHOUSE. This, in most private houses in the country, and in most of the Cambridge colleges, was an important adjunct to the hall and kitchen. In Oxford most

of the Colleges went to the common brewer, and still remained his customers till the Legislature at the end of the seventeenth century put a malt tax on the public brewer, but no charge on the private brewer, probably through a fear that such an impost might too nearly resemble the Parliamentary excise. When the Oxford Colleges began private brewing, they continued it. At Winchester and Eton the practice of brewing has continued to recent times, and in both those great schools enormous quantities of beer were brewed periodically. At first of course beer was the only alternative to water, except at the end of the seventeenth century among people of fashion in London and a few other towns. In these later times, and before reforms were induced on those great scholastic corporations, the brewhouse, and the claims of officials on the brewhouse, were a considerable charge on the revenues.

The appointments of a seventeenth-century brewhouse were costly. As time went on, and the habit of drinking ale fresh from fermentation was abandoned for beer flavoured with hops, the taste of the consumers, probably stimulated by the shrewdness of the common brewer, was satisfied with only such beer as was brewed in spring and autumn, when the product is, in the absence of modern and artificial appliances, most satisfactorily manufactured. But when, as in the sixteenth century, beer was brewed one day and consumed the next, simple arrangements were sufficient. My reader will see, if he turns to vol. iv. p. 429, what was the ordinary furniture of a fifteenth or even sixteenth century brewhouse.

The most important and costly articles in the brewhouse were the guile-tun, the mash-fat, and the copper boiler. Now in 1588 Lord North buys a mash-fat for the comparatively modest sum of £5. At this time, I believe, the practice of brewing large quantities at a time was far from universal. In 1609 Eton College gives £9 for a new mash-tun, and in 1610 £10 for a new brewhouse-tun. In 1613 King's College

pays £12 for an ale-fat, and in 1630 £13 for a mash-tun. In 1646 Eton College gives £13 10*s.* for a new mash-tun. In 1662 Winchester College pays £10 for a vat. In 1622 Eton College pays £10 for a guile-tun; in 1630, £14; in 1646, when it buys a mash-tun, it also buys a guile-tun for £14 10*s.* In 1662 Eton College buys two new tuns at £16 each. But when New College began to brew on its own account, in 1690, I do not find, except in the purchase of a large number of barrels from the cooper, that it incurred the expense of those tuns. In 1593 Magdalen College buys a copper furnace, by which I understand a boiler, together with other apparatus for brewing.

Now I have little doubt that these vats or tuns were very large vessels for holding the worts, for certain entries will be found among the article 'Metals,' vol. vi. p. 459 sqq., which will illustrate the cost of brewing utensils. In 1584 Lord North buys a copper brewing-vat, the weight of which is given, at a cost of £15 6*s.* In 1639 Eton College bought a new copper, evidently for the brewhouse, for which it pays £58 1*s.* 9*d.*; and in 1648 puts a bottom to a copper, probably one which had been purchased previously, at a cost of £8 12*s.* 6*d.* In 1683 Eton College buys another copper by weight, at a cost of £107 6*s.* So I suppose the brass siphon for Winchester, for which the College paid £185 4*s.*, was a brass vessel for boiling the worts after the mash was completed. A guile of liquor, according to Halliwell, is as much as is brewed at once. The entry under the year 1630 seems to suggest that the guile-tun and mash-tun were different vessels, the term guile-tun being found at Eton College only. Connected with the first stage in the operation of brewing must be the great fats of 1593, three of which are bought by Magdalen College at 43*s.* 4*d.* each, the cooler at 70*s.* The principal vessels then in a brewhouse, where there was a considerable production of beer, would involve an original outlay in the first half of the seventeenth century of £100.

The malt was coarsely ground before it was mashed, and the mill which King's College had in hand appears to have

been employed for grinding malt only. But Magdalen College supplies me also with the entry of a malt quern, under the year 1594, at a cost of 26*s.* 8*d.*

The beer was stowed in different-sized vessels. There is the generic cask, found in twenty-one years, between 1596 and 1686. The price of this article is from 4*s.* to 8*s.* Up to 1629 4*s.* and 4*s.* 6*d.* are common prices, though more than this is paid, even in early years. From 1634 onwards it is never below 7*s.*, and is at last 8*s.* Barrels are only found in the latter half of the seventeenth century. At first, in 1646 and 1647, they are 5*s.* 3*d.*; then, in 1650, they are 5*s.* each; in 1662, 6*s.*; in 1666, 7*s.*; in 1675, 7*s.* 6*d.*; in 1683, 1690, and 1692 they are 8*s.*; in 1697 and 1699, 10*s.* All these prices are from Winchester College. In 1688 the price may be obtained from the analysis of a composite purchase, ten barrels and five humbers costing £4 12*s.* 6*d.* Now humbers and humberkins are found at Winchester College in 1660 and 1665 at 5*s.* 3*d.* and 5*s.* 6*d.* each. In 1688, the barrel should be 6*s.* 9*d.*, if the humber is 5*s.* Once only are barrels found elsewhere. At All Souls College, in 1690, they are at 4*s.*

One might have expected that the price of hogsheads, the word generally implying a fixed quantity, would have been fairly steady. But in 1587, hogsheads, bought by Lord North for military purposes, are at 4*s.* 6*d.* In 1596, one costs 3*s.* 2*d.*; in 1600, Shuttleworth buys them at 1*s.* 9½*d.*, and Lord Spencer at 4*s.* In 1622, Eton College gives 2*s.* 9*d.* From this time forth the price is steadier, from 4*s.* to 5*s.* 10*d.* Possibly they were empty wine-casks.

Butts are at singularly capricious prices. In 1595, Eton College buys them at 4*s.* In 1632, the same place gives 16*s.*; in 1646, 8*s.*; in 1685, if there be no error in the original account, 30*s.* In 1665, Winchester pays 3*s.* 6*d.* for a butt. It is difficult to account for these prices, except on the ground that some were ordered from the coopers, some bought second-hand, perhaps again as empty wine-casks. Thus in 1616 King's College bought twenty-eight wine-casks at 4*s.*, in 1690

Magdalen College one wine-barrel for 22*s.* In 1630 Eton College buys five oaken tuns at 7*s.*, and in 1632 gives £2 for a tun. But the latter entry may be in the sense of a brewing-vat. Barm-pails are found in 1587 at 10*d.*, and in 1689 at 1*s.*, the yeast selling at 10*d.* a pail. Hop-baskets, varying in price from 1*s.* 4*d.* to 3*s.* between 1596 and 1665, and from 6*s.* 6*d.* to 7*s.* between 1668 and 1680, have been found eleven times.

Hop-strainers have been noted in 1690 at 4*s.* 6*d.*, and in 1700 at 4*s.* Tubs, apparently for the brewhouse, are at 6*s.* in 1611 and 1618. A funnel is 6*d.* in 1603. Tunnels are at various prices, 1*s.* 4*d.* and 5*s.* in 1595, 1*s.* 8*d.* in 1601, and 6*d.* in 1675.

Brass cocks, sometimes specially noted as for beer, are found at prices from 1*s.* 2*d.* to 5*s.* 6*d.* They seem to have been an invention or an importation of the seventeenth century. I find them first in 1616 at 1*s.* 2*d.* and 3*s.*, at 3*s.* 8*d.* in 1619, at 2*s.* and 3*s.* 4*d.* (in the latter case called great) in 1629, at 2*s.* 6*d.* in 1634 and 1637, at 2*s.* 5*d.* in 1672, at 4*s.* in 1674, at 2*s.* 6*d.* in 1683, 1698 and 1702. There is an entry of a brass cock in 1626 at 5*s.* 6*d.*, no object being indicated, and of a brass cork to a pipe in 1611 at 6*s.* In 1596 a spigot is quoted at 5*s.* 6*d.*, and in 1611 two beer casks, probably the old wooden sort, at 6*d.* each. In the same year sixty spigots and faucets are bought for 16*s.*, i. e. at a little over 3*d.* each.

In 1698 and 1699 bungs are priced at a shilling a dozen. Cork is occasionally purchased throughout the whole period, but without any information as to its design; and it is frequently used for fishing-nets. Hoops, i. e. wooden hoops, are at 4*s.* a hundred in 1594 and 1595. The only other article which seems to me to be especially connected with the brewhouse is an ale-standard, bought by New College in 1675 at a cost of 3*s.* 6*d.*

THE STABLE AND COACH-HOUSE. Most of the business of private persons and corporations was carried out on horse-

back, though towards the end of the seventeenth century stage coaches were started, to the great alarm of many, who imagined that the breeding of horses and the maintenance of inns would be seriously compromised if carriage travelling were to become general. In course of time private carriages appear in the accounts, ordinarily provided by rich colleges for the head of the foundation. Towards the conclusion of the period, there seems to be negative evidence that the heads of colleges did not make progress to the corporation estates as regularly as they did in the first sixty years, for the entry of a special saddle for these personages becomes rarer, and finally ceases.

There are evidently at least three kinds of saddles: those purchased for rich or considerable persons, those procured for the fellows on progress or by persons of moderate fortune and position, and those bought for servants, though the distinction between the second and third kinds is not very markedly made out. Generally the saddle is purchased separately from the other appointments of the menage. Sometimes the whole equipment, saddle, bridle &c., is purchased at once, and recorded in a composite sum. There are also sumpter-saddles and sumpters, which are understood to be conveniences for the easy conveyance of luggage on horseback. I find also saddle-cloths, and once a sumpter-cloth. Bits, snaffles, bridles, spurs and stirrups are found, and, on two occasions, side-saddles.

Saddles are described as Buff, Scotch medley, Scottish, Spanish, Motley, Spruce, Moorish, but I am not able to decide whether these names denote the origin or merely the fashion of the article. They do not represent, as we should conclude if they were of foreign origin they would be, the highest prices.

In 1583 Lord North buys, evidently for himself, a saddle for 40*s.*, a buff saddle for 16*s.*, and six called Scotch medley for 13*s.*, no doubt for his attendants. In the same year Corpus Christi College buys three motley saddles at 11*s.* 4*d.*

each. In 1584 the same nobleman buys a saddle and furniture for 53*s.* 4*d.*, and a pack-saddle for 5*s.* 6*d.*; while New College buys a saddle and furniture for the Warden for 40*s.*, and an ordinary one for 20*s.* Lord Pembroke in the same year gives 9*s.* for a saddle, and 12*s.* for a 'styll' for his wife. I do not find this word explained. In 1585 Lord North pays 50*s.* each for two Spanish saddles, and 15*s.* for a male saddle. Corpus Christi College buys a saddle and furniture for the President in London for 53*s.* 4*d.*, and pays 2*s.* 6*d.* for the carriage. In 1586 the President's saddle costs Magdalen College 90*s.*, while Lord North pays 28*s.* 6*d.* for a furnished saddle, and 16*s.* each for two new motley saddles, and 27*s.* a-piece for nine new large saddles. In 1587, when the country was astir with the Armada, Lord North buys two more new motley saddles at 13*s.* 4*d.*, and another for 30*s.* His own store probably supplied him with the means for mounting the company of fifty horsemen which his accounts show that he raised. A saddle, bridle and furniture cost Corpus Christi College 54*s.* for the President; and three saddles, each at 14*s.* 4*d.*, are bought for the servants. Lord Pembroke pays 10*s.* for one saddle, 11*s.* 2*d.* for another, in the same year. In 1588 Cambridge gives 32*s.* for a spruce saddle. In 1589 Lord North buys twelve new saddles at 15*s.* each. Corpus Christi College pays 14*s.* for a fellow's saddle, and the same price for each of two servants' saddles.

In 1590 the Warden of All Souls College has a saddle and bridle at the cost of 54*s.* In 1591 the saddle of the Corpus Christi President costs 66*s.* 8*d.* with its furniture, while four others are bought for a fellow and three servants at 18*s.* 4*d.* each. Two saddles are bought for the President of Magdalen College, though probably not for his personal use, at 32*s.* 6*d.*, for in 1593 the College buys him one at 55*s.* 10*d.* A new saddle at All Souls College in this latter year is 14*s.*, and one at Worksop is 11*s.* 8*d.*; both are probably for servants. In 1594 Corpus Christi College buys two new saddles at 13*s.* 4*d.* In 1595 a sumpter costs 36*s.* 8*d.* at Cambridge, and a

saddle and bridle at Eton College 18*s*. Lord Pembroke also buys a saddle and furniture at 30*s*., probably for his own use. In 1596 Corpus Christi College buys three new saddles, no doubt for a fellow and two servants, at 14*s*. In 1598 King's College buys four new livery saddles at 9*s*. In 1599 the saddle of the All Souls Warden costs 96*s*., a saddle and bridle at Magdalen College 59*s*. 4*d*. A saddle and furniture too are bought by Lord Spencer at 26*s*. 8*d*., and eight other saddles and furnitures at 13*s*. 4*d*. In 1600 a saddle and bridle at Eton College is 28*s*.

In 1601 the Warden's saddle at All Souls College costs 96*s*. 6*d*., but in 1602 the Sub-warden's costs only 17*s*. at the same College. In 1603 a trunk-saddle is bought by Magdalen College at 60*s*., and another at 22*s*. In 1604 the saddle of the All Souls Warden is 104*s*., that of the Bursar 30*s*. The saddle of the Corpus Christi President is 43*s*., while two Moorish saddles are bought at 14*s*. 3*d*., and a Scottish for 10*s*. 10*d*. Lord Spencer buys eight saddles with furniture at 15*s*. In 1606 Corpus Christi College buys three servants' saddles at 21*s*. 1*d*. In 1608 the President's saddle at Corpus Christi College costs 59*s*., while those for the servants are at 18*s*. 10*d*. At Magdalen College in the same year the clerk's saddle is 21*s*. 4*d*. In this year too S. John's College pays 82*s*. for a sumpter and sumpter-saddle. In 1609 a new sumpter is 53*s*. 4*d*., and the saddle with furniture of the Corpus Christi President 68*s*. 6*d*.

In 1611 the saddle of the Magdalen President is 102*s*. 6*d*., and a sumpter-cloth 50*s*. The saddle of the All Souls Subwarden is 33*s*. 4*d*. In 1613 the Warden's saddle at All Souls College is 113*s*. 4*d*., the highest price which I have found, his two servants being supplied at 15*s*. 6*d*. A servant's saddle at Eton College is 12*s*., and at the same price in 1614. In 1615 the Magdalen President's 'ephipphium' is 95*s*., a male saddle and furniture at Corpus Christi College 22*s*. 6*d*. In 1617 five new saddles are bought by Corpus Christi College for the President, two fellows, and two servants, at the collective price of 166*s*. 1*d*. If the cost of the President's saddle, as in 1609,

was 68*s.* 6*d.*, this would leave the others at 24*s.* 5*d.* In 1619 the Warden's saddle at All Souls College costs 96*s.* 7*d.*, while the Archers at Theydon Gernon pay 16*s.* for one.

In 1621 All Souls College pays 15*s.* 6*d.* for a saddle. In 1622 Eton College gives 30*s.* for a fellow's saddle, New College 27*s.* In 1625 All Souls College pays 37*s.* 7*d.* each for two saddles, 20*s.* 7*d.* each for three. In 1626 Eton College gives 35*s.* 8*d.* for a Spanish saddle and velure. In 1631 a saddle is bought in London at 40*s.*, and two side-saddles at the great price of £12 10*s.* each. Both these purchases are made by Lord Spencer. In 1634 Eton College buys a black saddle for 72*s.* 10*d.*, and a livery saddle for 21*s.* In 1635 Lord Spencer gives 80*s.* for a saddle. In 1636 three saddles are bought by Corpus Christi College for the President, a fellow and a servant, at the collective cost of 122*s.* 6*d.* In 1638 the same College gives for the saddles of the President and two servants 114*s.* 4*d.* In 1639 Eton College pays 26*s.* 8*d.* for a sumpter-saddle, All Souls College 99*s.* 4*d.* for the Warden's saddle.

By this time, though the practice of keeping up the stable was by no means abandoned, it became very usual to hire horses from persons who made letting them their business, like Hobson of Cambridge. Besides, the Civil War soon broke out, and travelling on horseback became inconvenient. In 1646 a new saddle is bought by Eton College for 20*s.* 6*d.*, a saddle and bridle by Corpus Christi College for 10*s.*, and two servants' saddles at Winchester College at 17*s.* In 1647 a saddle, bridle, and housing-cloth is bought by King's College for 22*s.* In 1648 a saddle and bridle at Hampton are bought for 13*s.*, and in 1649 two servants' saddles at Winchester College at 19*s.* In 1651 the Corpus Christi College saddle is 22*s.* 2*d.*; in 1653, 61*s.*, this being no doubt a purchase for the President. In the same year All Souls College pays 40*s.* for a saddle. In 1654 Corpus Christi College pays 35*s.* 6*d.* and Master 51*s.* for a cloth-saddle and decorations, bridle, stirrups, girths, cover, horse-cloth, and saddle-cloth, probably

a second-hand purchase from some needy cavalier. In 1656 Winchester College pays 22*s.* each for new saddles and bridles. In 1658 Eton College gives 22*s.* 6*d.* for a new saddle and bridle, and in 1659 38*s.* for a saddle.

In 1664 Eton College buys a new saddle and bridle for 44*s.*, and Master a saddle for 28*s.* In 1665 Magdalen College gives 52*s.* for a saddle, and All Souls College 32*s.* 6*d.* In 1666 Master pays £5 for his wife's side-saddle and furniture. In 1668 New College gives 12*s.* for a saddle. In 1669 King's College pays 30*s.* for a saddle, and in 1670 38*s.* for the Provost's saddle and 13*s.* each for two others. In 1678 Eton College pays 26*s.* for a saddle and portmantle. This is practically the last entry which I have found.

In 1688 however Lord Lovelace purchases at Henley a whole horseman's equipment, a wallet (which I presume is a saddle-bag to carry necessaries), a pad, a saddle, and all furniture trimmed with silver and gold, for £14. Later on we shall find certain articles of domestic furniture which this restless and expensive person purchased.

Saddle-cloths are purchased from time to time, but it is not quite clear whether they were put between the saddle and the horse, or were employed as covers to the saddle in the harness-room. The highest price at which I have found them is 8*s.* in 1638, the lowest 3*s.* in 1628. In all cases they are bought by Corpus Christi College. Once they are said to be made of black baize, which confirms the impression that they were put below the saddle on the horse. The average of twelve entries is 4*s.* 4½*d.*

Horse-cloths are occasionally found, sometimes said to be of canvas, as in 1604, when six were bought at 3*s.* 2*d.* each by Lord Spencer. In 1611 Corpus Christi College gives 1*s.* 5*d.*; in 1626, 5*s.* 9*d.*; in 1627, 3*s.* 3*d.*; in 1635, 6*s.* 2*d.* In 1660 New College pays 14*s.* 4*d.* each for two; in 1667, 4*s.* 10*d.* each for three. It is not easy to interpret such variable prices.

Bits are found at very different prices. In 1583 I find them at 2*s.* 1*d.*, 5*s.* (for the President of Corpus Christi College), and

6*d.*, a purchase of Shuttleworth. In 1585 Corpus Christi College again gives 5*s.* for its President's bit, Lord North paying 3*s.* 6*d.* In 1587 there are five prices from 2*s.* 3*d.* to 3*s.* In 1589 Lord North buys ten, giving 11*s.* for the whole. Between 1610 and 1671 the price varies from 2*s.* to 5*s.* 6*d.* The difference is due to material and workmanship. They are sometimes tinned, as in 1594. Snaffles are found separately and with bits. In 1596 the two together are bought in London for 7*s.* 2*d.*, and the article must have been highly finished. They generally cost from 1*s.* to 8*d.* In 1659 a bridle and saddle together cost 1*s.* 10*d.*

Bridles vary in price according to workmanship. They are as low as 1*s.* and as high as 16*s.*, the last-named being the bridle of the Provost of King's College in 1613. So one in 1594 for the President of Corpus Christi College costs 5*s.* 4*d.* One in 1669, at 6*s.*, is bought by Eton College. The average of ten entries is 4*s.* 1*d.*

Spurs are from 5*d.* to 3*s.* the pair. They are generally at 1*s.* The average of eight entries is a little over 1*s.* 4¼*d.* Stirrups are at 10*d.* in 1599, 3*s.* 4*d.* in 1622. But the latter are copper. Stirrup-leathers cost 1*s.* in 1610, girths 3*s.* a dozen in 1602, and a martingale 8*d.* in 1603. A surcingle and pad are 10*d.* in 1667, and the trappings of the President of Corpus Christi College, in 1589, 8*s.* 2*d.*

In these riding journeys the necessary clothing was carried by the riders, often on an additional horse, occasionally called a male or sumpter horse, from the package he carried. I find these males in 1611 at 33*s.* 4*d.*, in 1615 at 22*s.* 2*d.* The ordinary package taken by travellers was a cloak-bag, so named because it supplied the means of protection from weather. The cloak-bag was of various prices, no doubt according to size, for it is dearer in the beginning of the period than it was at about the beginning of the Civil War, when the cloak-bag disappears from my accounts, my last entry being in 1641. The average from twenty-five entries of cloak-bags is 4*s.* 8½*d.*

Cloak-bags were superseded by portmantles, as they are called. From the higher price of these conveniences I conclude that they were made of more substantial materials. My first entry is in 1636, when the price is 10*s.* In 1648 and 1657 it is 7*s.*; in 1662 it is 10*s.*; in 1681, 16*s.*; in 1690, 13*s.* With these may be taken a sealskin trunk bought by Master in 1661 for 15*s.*

Curry-combs are of various prices. The highest-priced which I have seen, 6*s.*, is bought by Eton College in 1673; the lowest, 8*d.*, by Corpus Christi College in 1610. The average of eleven entries between 1583 and 1687 is 2*s.* Mane-combs, in the early period only, are generally 6*d.* each. In 1685 a mane-comb and brush are priced together at 3*s.* 6*d.* In course of time, the corporations, probably the private owners, trusted their grooms with these minor purchases, and sometimes even with important purchases, such as those of oats, beans, hay, straw, and horse-bread. A dusting-comb in 1588 costs 1*s.* 4*d.* It is probably very much the same as a curry-comb.

Lanterns for the stable are quoted under this name nine times. The price is from 10*d.* to 2*s.* The average of the nine entries is 1*s.* 6*d.* A stable-prong in 1592 costs 8*d.*; a stable-fork in 1631, 8*d.* A stable-shovel in 1592 is 10*d.*; in 1636, 1*s.* 4*d.* A stable-bucket in 1608 is 1*s.* 4*d.*; an oat-sieve in 1690, 8*d.* Stable-brooms in 1654 are 2*s.* the dozen. In 1612 a stable-barrow costs 7*s.* 6*d.*

Horseshoes are 3*d.* each in 1596, and go up to 4*d.* from 1599 to 1646, then they are 6*d.* and 5*d.* Towards the end of the period they are 6*d.*, and in the last year but one 8*d.*

The accounts sometimes give prices of riding-boots. In 1583 they are 15*s.* 10*d.*; in 1584, 9*s.*; in 1647, 14*s.*; in 1674, 24*s.*; in 1693, 14*s.* My reader will remember that they are, as represented in the prints of the time, very long and full.

Of horse medicines, I have found nerval again. It occurs before in 1454 (vol. iii. p. 555, col. 1), at 8*d.* a pound; here it is 10*d.* It is however very likely that some of the few medicines which have been recorded, and on which I shall

comment below, are for the stable. There is also a horse drench at 6*d.* in 1595. But the most curious entry for the stable is dog's-grease, which I have found in 1653, 1654 and 1678, in the first and last years at 1*s.* the pound, in the second at 10*d.* The farriers of the time may have had a traditional belief in this remedy, but I have found it here only. The first two entries come from Eton, the last from Winchester.

In 1634 the Fellows of King's College, Cambridge, bought their Provost a new coach at the cost of £42 15*s.* 4*d.* The entry does not imply that he had one before, for it is impossible that I should have missed every intimation of such an acquisition in the earlier accounts of this corporation, which have been preserved in unexampled abundance, and since the provident care of Mr. Smith rescued them from risk some century and a-half ago, have been preserved with such care. The Provost's coach was a new departure. In 1637 the coach must have had an accident, for the College buys a new wheel, no doubt using the old irons, for 22*s.* In 1639 they bought four new wheels, the old irons being certainly still sound.

In 1663 they again bought the Provost a new carriage, the price £40, for which they bought new wheels and irons in 1670 at a cost of £5 2*s.* In 1671 they had to get two front wheels and an axis at a cost of 40*s.* In 1672 they bought two hind wheels, which with the irons cost 92*s.* In 1678 the College bought a third carriage at a cost of £47. In 1685 a new coach cost £22, but here I suspect that there was an exchange, the old one being taken over. In 1689 a fifth carriage was bought at a cost of £52 1*s.*, for which in 1702 a new set of four wheels with irons was provided, the charge being £8 5*s.* 4*d.* It must be remembered however that old materials were frequently sold, and the price which was allowed by the dealer was deducted from the charge.

The Provost's coach must have been more substantial than Master's. When this country gentleman was married, in 1665, he bought a new glass coach, with two sets of harness and curtains, for £38 5*s.* In 1667 he bought four wheels, no

doubt to fit with the old irons, for 50*s*. In 1675 he bought another coach for £35 10*s*., this being the last year of his accounts.

In 1687 a chariot is bought at Cuckfield for £28, and a 'mourning charett' in London for £25 10*s*. These appear to have been slighter structures, for there is no reason to believe that the cost of these articles was likely to diminish.

The original harness of the Provost's coach must have been a very rough affair. The traces I suspect were of strong rope, and the collar and harness of very rude workmanship. I find no harness till 1670, when two sets, each for two horses, were bought at £4 and £6. In 1672 a set costs £5 10*s*. In 1676 the College gives £10 for a new harness, and in 1682, £11 6*s*.

I have condensed the information which I have to give about the seventeenth century stable and coach-house within as narrow limits as possible; nor have I space here to construct, as these materials would allow me to construct, such an account of this side of social life as would enable my reader to see how journeys were undertaken, how the business of a great estate was managed, and how the rulers of the corporation bestowed, to the best of their power, such splendour as they could confer on the head of the society. And at this time, too, the College was threatened with the loss of their right of free election, the Stewarts claiming to appoint their Provost, as representing their founder.

THE CHAPEL. I have but little to say on this part of the subject, for though the entries in my accounts are significant, they are comparatively few. In these notices I shall include such particulars as have come before me in connection with parish churches. I may state, perhaps, that such particulars are accidental to my enquiry, which is primarily of agriculture, food, and labour.

The services and appointments of a chapel or church, in the latter part of the sixteenth century and for about the first thirty-five years of the seventeenth century, were plain and

bare. The decorations of the older religion were mutilated or effaced or hidden, the ritual and vestments were abandoned, the altars were taken away, plain tables no way separated from the body of the church were substituted, and the cost of the service reduced to the narrowest proportions. The principal charge of a college chapel or church was for the wine consumed at the four Communions which are customarily celebrated in the year. It is a mere delusion to imagine that the advertisements of Elizabeth or the injunctions of prelates induced, in places most amenable to influence, any beautifying of the service till the time of Laud. The influence of this person can be traced in the accounts, and nearly as much perhaps, that of the Restoration.

In the fifty and more years to which I have referred, there are two purchases of a communion table, one by Corpus Christi College in 1587, when 26*s.* 8*d.* was paid, another by Oriel College in 1595, when the charge incurred was 21*s.* 6*d.* In 1584, and again in 1587, Corpus Christi College covered the table with a 'carpet,' in the first year at a cost of 17*s.*, in the second, when the new table was bought, of 18*s.* 10*d.* Any one who compares this outlay with that incurred for hall or chamber will see that the cost was stinted in the chapel. It is true that, in 1624, Magdalen College purchased a velvet or plush cloth at a considerable cost, £33 8*s.* 10*d.* But I have found no other similar expenditure. In New College, under the year 1630, two velvet cushions lined with camlet are purchased at 40*s.*; but these are for the seats of the Warden and Sub-warden. In 1608 Corpus Christi College bought six Turkey cushions at a little over 5*s.* 6*d.* each. In 1607 Oriel College gave 1*s.* for a chapel lantern. In 1613 the churchwardens of S. Mary Bredman, Canterbury, which was once the church of the Mayor and Aldermen, bought two pots, one holding a gallon, the other a pottle, for the Communion. A pulpit in 1584 cost All Souls College £3. In 1626 Magdalen College, Oxford, put thirty-two brass candlesticks into the chapel at 2*s.* 11*d.* each.

In 1635 and 1636 the influence of Laud was at its height. At Corpus Christi College 'the table was altered' at a cost of 3*s.* 6*d.* in 1635, and a rail set before it at an expenditure of 90*s.*, while 25*s.* was spent on a frame for the pulpit. In the next year, 'a chest, round and revayled, with lapts and pendants to hold chapel vestments,' was purchased for 90*s.*; and in 1638 a chafing-dish was bought for perfuming and airing the copes. But the most costly part of the revival was in wax candles, great quantities of which were bought and burnt. At S. John's College, Cambridge, £243 0*s.* 4*d.* were spent in chapel decorations in 1636, and in one year 560 lbs. of wax candles, the College having in 1634 put a velvet cushion on the altar at a cost of 65*s.* 8½*d.*

At New College in 1636 the College paid £55 to 'Francis Doone, the picture draper,' for sixty-four pictures in the chapel, and hired one Richard Hawkins to gild and paint sixty-two seats in the same place at 4*s.* 6*d.* a foot, each seat having 9 feet superficial, and each buttress at 2*s.* This gives a total cost of £126 3*s.*, the painting and gilding coming to £118 6*s.*, and the buttresses being 74½ in number. In the same year the College gave 50*s.* for eleven service-books, with choice services and anthems. But I find no particular cost incurred at King's College, Cambridge, and absolutely nothing at Magdalen or Eton Colleges. At King's College some chapel books are bought at 10*s.* 11*d.*, and a dozen Turkey-work cushions at £4 10*s.* the dozen.

Here however I may digress a little in order to say something about the church organs of the time. In 1596 the Magdalen College account states that £33 13*s.* 8*d.* was expended on organs, that the colouring and gilding them came to £2 12*s.*, and the wainscot frame to £3 4*s.*; in all, £39 9*s.* 8*d.* This is not a considerable outlay, but in 1537 an organ at Oxford cost £25 7*s.* 10½*d.*, and in 1554 a pair at Magdalen College only £13 1*s.* 1*d.* (vol. iii. p. 570, col. iii, and p. 574, col. i). Other entries are at still less cost.

It was therefore apparently an entirely new departure when in 1605 King's College, Cambridge, determined on going to an

unprecedented expense on its organ. It hired Dallam, the most celebrated organ-builder of his time, and kept him with two of his men at work on the instrument for 58 weeks, from June 1605 to August 1606. The College bought 16 cwt. of tin and 6 cwt. of lead, a large quantity of wainscot and other board. It bought nine hundred of leaf-gold at 7*s.* 6*d.* the hundred. It paid 10*s.* for the carriage of Dallam's tools, being four hundred-weight. It hired sawyers and joiners for months, and laid out in the whole £371 17*s.* 1*d.* in labour and materials, besides £6 for charcoal and candles, and £18 6*s.* 8*d.* for Dallam's commons and those of his two men in hall, including bread and beer. The organ was dismantled, and the tin pipes in great part sold by the intrusive fellows, though less than three hundredweight is acknowledged in their accounts. It is not known at King's College whether any of Dallam's work is still in existence.

In 1613 Eton College employed Dallam to build them an organ. Here however it appears that they purchased the pipes from the builder, the particulars being given in vol. vi. p. 587, col. iii. The total cost to the College was £123 1*s.* 1*d.*, so that the Eton instrument must have been greatly inferior to that built by King's College.

In 1663 New College, Oxford, determined on rebuilding its organ, which had no doubt been wasted during the Civil War. Now in 1662 the College account for the year states that gifts had been made for the new organ to the amount of £440 13*s.* 4*d.*, while the account for the next year states that the cost of the instrument was £426 10*s.* 7*d.* In 1665 the College added a flute stop to the organ at the cost of £5. The record does not inform us as to who was the builder. Mr. Hopkins, in Grove's Dictionary, says it was built by Robert Dallam, but puts it under 1661. The College account is conclusive.

During the Civil War and the Commonwealth there is not a single entry which is distinctive of the chapel service, beyond one of seven chapel books at a cost of less than 6*d.* each at

Oriel College in 1645. But with the Restoration matters were changed. In 1659–60 New College buys six service books at 8*s.* 6*d.* each, and in 1662 common prayer-books, of course the revised liturgy. But the most marked feature of the ritual at this time is the purchase of expensive candlesticks for the communion table. In 1664 Winchester College buys a pair of silver-gilt candlesticks for £17 14*s.* 8*d.* In 1667 New College purchases a pair gilt at £33, and another pair for £35. In 1670 All Souls College buys two gilt sconces for the chapel at 36*s.* 3*d.* each, and, as I have elsewhere pointed out, handsome and costly altar-cloths were bought.

There still remain some particulars on which to comment. In 1623 King's College buys a chapel clock at the cost of £18. Two bell-hammers in 1606 cost 21*s.* and 18*s.*, and in the same year 34 yards of matting to kneel on in chapel is bought by All Souls College at 3*d.* a yard. In 1680 a pair of cushions for the Warden and Sub-warden cost £22 11*s.* In 1596 an involucrum cadaverale, or shroud, cost 2*s.* 6*d.*; in 1623 a brass plate for an epitaph 6*s.* 4*d.*, and the engraving 30*s.* In 1670 a parish chest with three locks cost 18*s.* In 1616 a surplice is 30*s.*; in 1675, 46*s* 8*d.*; in 1700, 45*s.* for the reader, and 16*s.* 8*d.* for the chorister.

Common-prayer books cost 4*s.* 6*d.* in 1587, 4*s.* in 1598, Prayer-books, a term used for the Liturgy in New College only, are 3*s.* 8*d.* in 1623, 4*s.* in 1624, 3*s.* 9*d.* in 1626, 10*s.* and 9*s.* in 1662, 12*s.* and 8*s.* in 1680, 10*s.* 6*d.* in 1683, 15*s.* in 1692, 12*s.* in 1693, and 9*s.* 8*d.* in 1698. Liturgy-books are 3*s.* in 1660. There is a Thanksgiving-service for stopping the sickness at 3*d.* in 1625, and a Psalter in 1660 at 2*s.* 2*d.*

A Bible costs 41*s.* in 1586 at Canterbury, 30*s.* at Eton College in 1594, 30*s.* at New College in 1628, and 51*s.* at Corpus Christi College in 1635. These are church books. A Bible for the hall in 1636 costs only 6*s.*

A Latin Testament costs 1*s.* 6*d.* in 1626, a book of statutes 3*s.* 4*d.* in 1599, and a book of articles 3*s.* in 1616. At New College in 1602 a service-book, by which I presume is meant

music, costs 7*s.* 6*d.*, and eight singing-books at the same college cost together 44*s.* 6*d.* in 1671. A hanging-lamp in 1625 is 13*s.* 4*d.*; a vestry comb is 1*s.* in 1692.

In connection with religious offices, a marriage licence costs 11*s.* 3*d.* in 1585, and a wedding ring 20*s.* in 1665. On this latter occasion Master bought five cornelian rings at 2*s.* each to give away, put on black silk stockings, bought a new periwig, wore his sword in a silver belt, and had on a beaver hat.

BED-ROOM FURNITURE. There are several entries of bedsteads in the accounts. There is the ordinary bedstead, no further designated, the standing joined bed, the folding bed, the truckle bed, the boy's bedstead, and the wrought bed, by which I suppose is meant one that is carved. Then there is the material designated as a cedar bed. I find that which Shakspere has made familiar, a standing bed and truckle bed, and what are perhaps the same things, a bedstead and settle, a bed for the President of Corpus, and another for his servant.

A standing joined bed costs 20*s.* in 1588. In 1587 Lord North's cedar bedstead is bought for 50*s.* In 1589 a bedstead is 23*s.*; in 1591, 24*s.*; both being bought by All Souls College. In 1594 All Souls College gives 22*s.*, and King's College 18*s.* In 1595 All Souls College pays 33*s.* 8*d.*, and in 1596 buys two at 30*s.* In 1597 the same College gives 26*s.* 8*d.*; and in 1604, 15*s.* In 1609 this College buys at 59*s.* In 1610 King's College gives 8*s.*, probably for a servant. In 1613 All Souls College gives 55*s.* In 1621 Corpus Christi College pays 12*s.* In 1624 Magdalen College buys at 28*s.* for one of the foundation. In 1625 a walnut-tree bedstead, probably for the Provost, is bought by King's College for 80*s.* In 1633 Corpus Christi College pays 29*s.*; in 1637, 30*s.* In 1659 a bedstead with a buckram cover costs New College 27*s.* In 1675 Master gives 33*s.* 6*d.* for a folding bedstead, and in 1696 a wainscot bedstead is bought in London for 25*s.*

Master pays £10 for his wrought bed in 1666. The standing bed and truckle bed in 1608 cost 36*s.* 8*d.*; the bed-

stead and settle of 1589, 41*s.*; and the beds for the President and his servant in 1647, 55*s.*

There are inferior bedsteads. Truckle beds are at 5*s.* in 1587 and 1603, at 5*s.* 6*d.* and 5*s.* 2*d.* in 1605, at 14*s.* 6*d.* and 5*s.* in 1607, at 14*s.* and 12*s.* 8*d.* (All Souls College) in 1608 (the dearer articles being purchased in London), at 11*s.* in 1613 (also at All Souls College), at 5*s.* in 1614, at 6*s.* 6*d.* in 1623 (with the cords), and at 6*s.* in 1636; after which they are not found.

Boys' beds are bought at 4*s.* in 1587, at 16*s.* in 1588, and at 16*s.* 6*d.* in 1659. In 1605 a 'sponda,' by which I presume is meant a bedstead, is bought at 17*s.* and 8*s.*, and in 1608 at 8*s.* 6*d.* The term is used in the Oriel College accounts. A French bedstead and screens at 20*s.* is bought by Master in 1654, when he had just left Cambridge. The furniture of his bedroom, in which there is no press or drawers, costs him £11 4*s.* 4*d.* It consists of a feather bed, bolster, and 48 lbs. of feathers, a bed rug and two best blankets, curtains, vallance, etc., andirons, etc., and four Russia leather chairs with the bedstead. To these we may add a child's cradle at 7*s.* 6*d.* in 1667.

The most obvious convenience in a bed-room was a clothes press. This is found in early times. It costs 26*s.* in 1589, 20*s.* in 1593, 25*s.* in 1594, 33*s.* 4*d.* in 1595, and 43*s.* in 1604. It is indeed highly probable that, even in considerable houses, clothes were stowed away in chests of oak or walnut, such chests being constantly to be found to the present day in old-fashioned houses. Again, it is very possible that the cupboards at 30*s.* in 1607, at 28*s.* and 26*s.* in 1614, at 25*s.* in 1615, and at 18*s.* 6*d.* in 1636, were purchased to stow clothes in. In 1611, a cupboard of boxes at 40*s.* is almost certainly a chest of drawers, a term which appears at 26*s.* in 1667.

A feather bed is 40*s.* in 1615, a pillow 5*s.* 6*d.* in 1628. In 1609 a feather bed and bolster cost 90*s.*; in 1620, 68*s.*; in 1654, 90*s.* A bolster for a groom costs 6*s.* 8*d.* in 1589. A bed-tick in 1605 is bought for 25*s.*, a flock bed for a servant 19*s.* in 1603, and 10*s.* in 1632. At Winchester College the beds of the foundation boys were stuffed with straw. A quilted wool mattress is

11*s.* in 1609, and two pairs of sheets and two pillows cost 56*s.* 4*d.* in 1607. But sheeting has been generally referred to in the chapter on linen articles.

Blankets of good or best quality are from 20*s.* (1606) to 25*s.* (1594) a pair. In 1605 servants' blankets are 14*s.* and 13*s.* 4*d.* a pair. In 1647 a single blanket is bought for the President of Corpus Christi College at 12*s.* In 1701 a new pair at King's College cost 17*s.* In 1666 Master buys blankets for his infant son, not specifying the number, giving 53*s.* for the whole. They were probably at least three pairs.

In 1648 a rug, two blankets and two pillows, cost Corpus Christi College 104*s.* In 1654 a bed rug and two best blankets are bought by Master for 46*s.* In 1701 a calico quilt is got for 25*s.* A rug and blanket cost 48*s.* in 1608. In 1620 a rug costs 22*s.*; and in 1635 one for the President of Corpus Christi College, to lay on his bed, 50*s.* In 1662 a green rug costs 23*s.*, in 1617 a bed mat 1*s.* 6*d.*, and a coverlet for a servant's bed 10*s.*

Curtains in 1604 are 31*s.* 6*d.*, a canopy and curtains in 1608 40*s.* In 1654 the curtains, vallance, tester, head, cloth, mat, and cord of Master's bed cost 26*s.* 4*d.*, and an arras coverlet is bought in 1609 for the Provost of King's College for £8. This bed-room contains twelve stools at 4*s.* and 3*s.* 4*d.* each, a large chair at 18*s.* 8*d.*, and a little back chair at 8*s.* In 1608 a green chair for their President's room costs Magdalen College 34*s.*, a bed-chamber table 8*s.*; and in 1615 a lychnuchus for the Provost of King's College costs 7*s.* In 1698 S. John's College buys a Japan screen for the Master, and pays 52*s.* for it.

In 1587 a close stool costs 2*s.* 6*d.*; in 1607, 7*s.* 6*d.*; in 1608, 11*s.*; in 1615, 7*s.* 6*d.*; in 1617, 10*s.* Probably the lasanum of 1667 is the same utensil, at 13*s.* 9*d.* There is a singular variety about another utensil, going by several names. A chamber pot in 1653 is 9*s.* 8*d.*; in 1671, 5*s.* A trulla in 1621 is 2*s.* 10½*d.*, in 1647 is 2*s.* 6*d.* A matula in 1615 is 1*s.* 6*d.*, a urinal in 1622 is 3*d.* It appears from a sale of old material that the first-named of these articles was metal. A basin bought in 1622 costs 2*s.*

A warming pan costs 6*s.* 8*d.* in 1614, and 10*s.* in 1680. A looking-glass is bought for 2*s.* 6*d.* in 1637, for 7*s.* in 1667, for 34*s.* in 1675, when the purchase is made by Master. But the most considerable purchases of looking-glasses are made by Lord Lovelace in 1688, at Oxford, near which city this nobleman had an estate. He gives £34 for a 42-inch glass, table, and stand; £30 for a 40-inch, with the same appendages; £14 for a 34-inch glass in a gilt frame; 45*s.* for a 21-inch glass in a walnut frame; 40*s.* for a 19-inch glass, and 25*s.* for a 15-inch in similar frames. He gives 8*s.* a piece for four dressing glasses, the dimensions of which are not given, 110*s.* for a japanned table and stand, 8*s.* each for two wainscot tables, and 33*s.* for an olive-wood table. Finally, he pays 45*s.* for a walnut chest, an indication that even so considerable a person as Lovelace used chests as we do drawers.

In 1696 Caryll of Harting buys two pairs of stands from the cabinet-makers of Westmeon, Hants, at 16*s.* 3*d.* each. In this agricultural village, and my native place, all industries other than those connected with the cultivation of the soil have disappeared. But for a long time there was a relic of a local industry in the turning of beechen bowls and dishes. Two centuries ago the village manufactured the higher class of furniture. In 1697 King's College bought the Provost a marble chimney-piece at a cost of £16 1*s.* Twelve chairs and hangings cost 22*s.* each in 1671.

I may here add a few notes about library charges. In 1596 a lock to the library costs 2*s.* 4*d.*; and a door in 1626, 50*s.* In 1604 Corpus Christi College buys fourteen library tables at 3*s.* 8¾*d.* each, and studs its library door with nails at the cost of 4*s.* 6¼*d.* the hundred. In 1700 a large press for books is bought by King's College for 22*s.* In 1699 the same corporation buys a skeleton case for 52*s.*, and the glass to it for 20*s.*

CLOTHING OF VARIOUS KINDS. Besides the materials for clothing discussed under linen and woollen fabrics, a number

of articles are named and priced in the accounts, and included in the list of sundry articles. These particulars throw no little light on the expenditure of the upper and middle classes. Most of the information which I am able to give under this head comes from private accounts, though one of the sets of particulars, the cost of presentation gloves, comes almost exclusively from the records of corporation expenditure.

The practice of presenting gloves to great people sprung up, if I can rely on the notes which I have been able to make, about the middle of the fifteenth century. The cost of these articles was modest and reasonable for nearly a century and a half. Towards the close of the sixteenth century the price began to be extravagantly high, and during the first twenty years of the seventeenth the cost was very great. The custom is dropped during the Civil War and the Commonwealth, and was revived at the Restoration. But I have found only two entries after that event. It is not improbable that the glove was the vehicle for a present or a bribe. The gift of gloves with that end has had a long history, from the days of Leotychides (Herod. vi. 72) to that of Lord Chancellor Clarendon (vol. vi. p. 601, col. ii), for the double spur royal, though a small contribution to that distinguished historian's irregular gains, had a good deal to do with the £7 which New College paid for the gloves which they gave him.

At first the price of presentation gloves remained moderate. In 1583 Corpus Christi College gave its Visitor (the Bishop of Winchester) and his wife two pairs at a cost of 11*s.* 3*d.*, and the city two pairs at 4*s.* each. In 1584 New College gave two pairs to the Lord Chancellor at 6*s.* a pair. In 1585 All Souls College gave five pairs to great persons, paying £3 for the whole. The city gave four pairs at 4*s.* 4*d.*, five pairs at 2*s.*, four pairs to the judges at 3*s.* 4*d.*, and again to the Bishop of Winchester a pair at 16*s.* In 1586 the Lord Treasurer and his lady got two pairs from All Souls College at a cost of 32*s.* In 1587 the city gives two pairs at 4*s.* 4*d.*, and two pairs at 5*s.* 8*d.* to distinguished persons, probably judges, though one

would have thought that in this year these people might have hesitated to accept gifts. In 1588 Oriel College pays 5*s.* for a pair to the Bishop of Lincoln, All Souls College 4*s.* 4*d.* for a pair to Dr. Aubrie, and two pairs to the Lord Chancellor and Archbishop of Canterbury, which together cost 33*s.* 4*d.* The city gives a pair at the cost of 8*s.* In 1580 the city gives Sir William Knollys a pair at 8*s.*, and two pairs for the judges at 3*s.* 4*d.* In the same year Lord North buys two pairs at 10*s.* each pair, probably for himself, possibly as presents. In 1590 Magdalen College gives 15*s.* for a pair of gloves 'domino Wolley.' In 1591 the Chief Baron gets a pair from All Souls College at 13*s.* 4*d.*, the Lord Treasurer two pairs at 16*s.* each. But New College presents the latter personage with a pair at 40*s.*, the first case I have found of an excessive price. The city bestows a pair on the Bishop of Oxford at a cost of 8*s.*, and another on Lord Norris at 13*s.* In 1592 the city pays 6*s.* 8*d.* each for two pairs to give to the sheriff, and 11*s.* for another pair to Mr. Carter.

In 1594 King's College gives a pair of gloves, at a cost of 10*s.*, to the Earl of Essex. In 1597 Corpus Christi College gives 16*s.* for a pair for the Bishop of Winchester, and in 1598 another pair at 17*s.* to this prelate. In 1600 All Souls College lays out largely in gloves to the judges, and I presume their attendants; two pairs at 21*s.*, two at 17*s.*, two at 9*s.*, and two at 3*s.* In 1601 the city gives a pair to its Recorder at 16*s.* 8*d.*, and next year All Souls College gives a pair at 20*s.*, the recipient not being specified. In 1603 a pair is given to Lord Northampton at 40*s.* and a pair at 36*s.* to Lord Kinloss by All Souls College, while New College gives a pair at 53*s.* 4*d.* to Lord Salisbury, and two pairs to the Lord Treasurer and Lord Northampton, the two costing 80*s.* In 1604 All Souls College is not to be out-done; it gives a pair to Lord Northampton at 60*s.*; while Oriel College presents the same nobleman with a pair at 20*s.* In 1605 All Souls College gives at 5*s.* 6*d.* a pair, in 1606 the city others to the judges at 3*s.* 4*d.* In 1607 the Chancellor and his secretary get two pairs from the

city at 7*s.* 6*d.* In 1608 the city distributes largely, two pairs to the judges at 6*s.* 8*d.*, two pairs to Lord Knollys at 20*s.*, one to the same person at 22*s.*, one at 15*s.*, and one at 12*s.* In 1609 Corpus Christi College gives a pair to the Earl of Worcester and pays 36*s.* 6*d.* In 1610 Oxford city gives the judges six pairs at 4*s.* 5½*d.*, All Souls College five pairs to the Prince (Henry) and his nobles at 28*s.*, but the cost of the fringe to the Prince's pair is 42*s.* 11*d.*

In 1611 S. John's College, Cambridge, follows the Oxford fashion, and gives a pair to the Bishop of Ely at 13*s.* 4*d.*, to the Bishop of Durham at 15*s.*, and to the Earl of Shrewsbury at 30*s.* In Oxford, Magdalen College pays 45*s.* for a pair to the Lord Chancellor, and 70*s.* for two pairs to the Prince and Chaloner, adding in a note its regrets at the Prince's death. Corpus Christi College gives a pair at 46*s.* to the Earl of Worcester, and another at 18*s.* to his secretary. In 1612 a pair of gloves is given by S. John's College at a cost of 30*s.* to the Prince's schoolmaster, Mr. Murray, afterwards Provost of Eton. In 1616 Corpus Christi College pays 22*s.* for a pair to Sir Sidney Montague, the Bishop of Winchester's brother, but 100*s.* each for a pair to the Earl of Worcester and the Bishop of Winchester. In 1617 the city gives two pairs at 60*s.* and one at 75*s.*, but does not designate the recipients. In 1618 the Bishop of Lincoln gets a pair from King's College at 30*s.*, and a pair from Oriel College at 100*s.* The judges' gloves at Oxford are 16*s.* 8*d.* a pair, and those for Knollys 90*s.* It is impossible to doubt that these prices are bribes.

In 1619 All Souls College gives a pair to Mrs. Fanshaw, at 34*s.* In 1620 Oriel College gives 100*s.* for a pair of gloves to the Lord Keeper (Williams), Bishop of Lincoln elect. In 1621 he gets another pair from All Souls College at 60*s.* In 1622 the Lord Keeper and Sir F. Lake get two pairs, the aggregate price being £4 4*s.*, from New College; and the Dean of Winchester a pair at 44*s.* from Magdalen College. In 1624 Corpus Christi College gives two pairs to the Earl of Worcester and the Lord Keeper at a cost of 125*s.*, New College a pair to

the Lord Keeper at 74*s*. In 1625 S. John's College gives the Bishop of Ely a pair at 18*s*., and in 1626 a pair to the Bishop of Bath and Wells at 35*s*. and the Duke of Buckingham at 55*s*. In 1627 the Countess of Warwick gets a pair at 55*s*. from Corpus Christi College, which in 1628 gives a pair at 70*s*. to the Bishop of Winchester, and in 1629 another pair to Lady Warwick again at 55*s*.

In 1633 S. John's College gives a pair at 55*s*. to the Duke of Lennox. In 1635 Magdalen College buys two pairs for the Bishops of Winchester and Norwich at a cost of £4 6*s*. 3*d*. In 1637 the Bishop of Winchester receives a pair from Corpus Christi College at 40*s*., and in 1639 the Bishop of Ely one from S. John's College at 50*s*. In 1644 All Souls College gives the Lord Keeper a pair at 49*s*., and the custom ceases for sixteen years.

In 1660 New College gives the Chancellor a pair of gloves and two spur royals at a cost of £7, and in 1672 the same College gives a pair at 85*s*. to the same official. It may be noted that out of the thirty-three years in which these presents were made, Cambridge fell into the fashion only six times, of which King's College is only represented once, and that for a long time S. John's College was moderate in its expense.

It cannot I think be doubted that these presents are exceedingly suspicious. It is hardly possible to conceive that any workmanship would amount with the material to £5, to say nothing of reiterated presents to the same official. Now my accounts within 1583 and 1687 give me occasional entries of gloves purchased by gentle-folks for their own use. The price varies from 1*s*. 3*d*. to 3*s*., though only three entries are above 2*s*. The average price of twenty-three entries of these gloves is almost exactly 1*s*. 9*d*. a pair. Common gloves, frequently given at audit dinners to farmers, cost from 6*d*. to 10*d*. a pair, and generally 8*d*. or 9*d*. I have found a pair of buckskin gloves in 1658 at 2*s*., and a pair of 'shammay riding gloves' in 1660 at 6*s*.

There are three markedly different kinds of hat worn by the

better-off classes. In one of these there is a great variety of price. In 1606 Shuttleworth gives only 1*s.* 3*d.* for a hat. In 1620 the Archers pay 26*s.* a-piece for two. In 1650 Dering pays 24*s.* for a hat. In 1673, 20*s.* is given at Horsted Keynes. These are all the higher prices. In 1631 a London purchase of Lord Spencer is 18*s.* 6*d.* In 1664 a hat costs 16*s.* 6*d.* at Horsted Keynes, and in 1667 Master gives 16*s.* for a grey hat. In 1584 Lord North gives 10*s.* for a taffeta hat, and in 1585 buys three at 16*s.* 6*d.* each. In 1683 a hat is bought for 15*s.* in London, and in 1693 one by Caryll at 14*s.* All the rest are 10*s.* or under. An average of twenty-six entries is 10*s.* 0½*d.*

There are two entries of boys' hats at 4*s.* in 1587, and at 1*s.* 4*d.* in 1599; of a servant's hat in 1656 at 4*s.* There is also a grey hat with silver lace at 26*s.* in 1666, of a gold-laced hat in 1672 at 32*s.*, and of a boy's hat with silver lace in 1675 at 20*s.*, the boy being Master's son, and about nine years old.

The second kind is riding-hats. Master gives 12*s.* for a black French riding-hat in 1661, 36*s.* for a riding-hat in 1662, 22*s.* for a white riding-hat in 1664, and 30*s.* for a riding-hat in 1673. A woman's (Lady Pembroke's) taffeta hat is 22*s.* in 1589, and a hat and girdle together in 1632 cost 11*s.*

The third kind of hat is the beaver or castor, sometimes called demicastor. Most of the entries are from Master's account book. The first which I have noted is also the dearest. One is bought by him in 1651 for 70*s.*, and is said to be French. In 1655 a French demicastor and band cost him 46*s.* 6*d.*; in 1656 the same article is 40*s.* In 1657 a demicastor and band are 44*s.* In 1658 and 1659 a hat and fine castor are each 40*s.* 6*d.* In 1660 a fine castor is 43*s.* 6*d.*, in 1662 a demicastor and band is 45*s.* In 1665 a beaver hat is 45*s.*; in 1668, 42*s.* 6*d.*; in 1669, with band, 42*s.*; in 1670, 47*s.*; in 1672, 50*s.*; in 1675, 61*s.* 1*d.*, this being the last year of Master's accounts. One would think, from the number which he bought, that he must have made wagers of hats. In 1683 a black beaver in London costs 50*s.* Now several of these hats in early years

are said to be French. But in my researches I have come across an account of beaver fur, sold in London in 1638. The quantity is large, being 1175½ lbs., and the prices are various. The highest rate is got for old fur, 14*s.* a pound. New is priced at 12*s.* The largest quantity is sold at 11*s.* 6*d.* Two small parcels are at 10*s.* and 9*s.*

The fashion of periwigs came in with the Restoration, and Master followed the fashion, having with this political event apparently thrown over his Puritan training, and buying Hudibras, and I regret to say, the travesty of Virgil, in succession to Baxter's Saint's Rest and Hartlib's Husbandry. There is a sign of his old associations however, in his purchasing in the same year that he bought his first wig the speeches of ten condemned persons, that is of the regicides.

Master buys wigs almost as frequently as he does beaver hats. In 1660 his first costs £3. In 1663 he gives £5; in 1664, £3 10*s.*; another being bought in the same year at London, and by another person, for £5. In 1665 he is married, and gives £5 for another. In 1666 he pays £4 10*s.*; in 1667, £4 10*s.*; in 1668, £7 10*s.*; in 1670, £5 7*s.* 6*d.*; in 1672, £5 5*s.*; in 1673, £4 16*s.*; in 1675, when his accounts close, £4 10*s.* 2*d.* In 1686 a periwig in London costs only 25*s.*, and in 1697 hair for a Spanish wig cost Caryll of Harting 16*s.* In 1675 one Duxbury buys two periwigs at 35*s.* and 55*s.* Some articles of clothing occur only in early times. In 1583 Lord North gives 50*s.* for a doublet; in 1584, 57*s.* But Lord Spencer in 1600 only pays 4*s.* 10*d.* Bombast for stuffing this kind of dress costs 1*s.* 5*d.* a pound in 1587. Points are 2*d.* a dozen in 1596, 3*d.* in 1598. Buttons are 5*d.* a dozen in 1590, 3*d.* in 1594 and 1597, 1¾*d.* in 1598. These purchases are made by Shuttleworth. In 1587 gold buttons are 2*s.* 4*d.* a dozen; I presume gilt. In 1600 Lord Spencer gives 4*d.* a dozen. Another article of dress which became obsolete at an early period are netherstocks. The price between 1584 and 1592 varies from 1*s.* 10*d.* the pair to 8*s.* 6*d.*, the average of eight entries being 4*s.* 2*d.*

Cloaks are 50*s.* in 1587, 23*s.* and 70*s.* in 1588, 57*s.* in 1589,

45*s.* in 1590. In 1670 a cloak cost 42*s.* The most expensive are bought by Lord North.

There are a great many kinds of stockings or hose mentioned in these accounts. There are stockings without any distinctive names, Jersey stockings, Worsted stockings, woollen stockings, mingled, linen, and thread stockings, riding, white serge riding, and coloured stockings, and children's stockings. There are silk stockings for men, women, and boys. There are hose without any other name, milled hose, and silk hose. I suppose that there is no real distinction between stockings and hose. Lastly there are socks, but this word in the seventeenth century had a different meaning from what it bears in the nineteenth.

Stockings and hose, not otherwise distinguished, are cheaper than any except woollen stockings, of which I have only two entries, in 1653 at 1*s.* 11¼*d.*, and in 1657 at 3*s.* Towards the end of the period they become dearer. I have found hose from 2*s.* to 12*s.*, omitting one entry. This is of white hose bought by Shuttleworth at 1*s.* 3*d.* in 1616, and perhaps for children. They are a good deal dearer when bought as boot hose. Such were those at 5*s.* 6*d.* in 1604, at 7*s.* 6*d.* in 1632, at 12*s.* in 1658, and at 7*s.* in 1661. So are most likely those in 1701. Stockings are with one exception from 2*s.* to 7*s.* a pair, the exception being a purchase for a dwarf in 1604, at 1*s.* 7*d.* Here some of the higher-priced articles after 1650 are most likely kinds which would, if the writer of the account had been precise, have come under the other heads. An average from fourteen entries of hose is 4*s.* 1¼*d.*, from twenty entries of stockings is 3*s.* 9¾*d.* Milled hose are 7*s.* in 1650, and 4*s.* in 1651.

Worsted stockings, of which there are twenty-eight entries, tend to decline in price as time goes on. They are found first in 1610, and noted last in 1698. They vary in price from 3*s.* 6*d.* to 12*s.*, and we are sometimes told that they are fine. The commonest colour is grey. Once in 1659, when they are 16*s.* a pair, they are said to have silk tops. Even in 1680, when

they are cheapest, they are said to be fine worsted. Omitting the entry of 1659, the average is 6*s*. 3½*d*.

Jersey stockings are found three times, at 8*s*. 3*d*. in 1587, at 5*s*. 3*d*. in 1595, at 3*s*. 3*d*. in 1653. The price seems to decline.

Thread stockings are found at prices from 2*s*. 9*d*. to 5*s*. On one occasion they are called buble thread, and ordinary thread are purchased by the same person in the same year at the same price. I conclude that linen stockings are the same article. The average of eight entries is 3*s*. 9½*d*.

Riding stockings are 5*s*. in 1662; white serge riding, 10*s*. 6*d*. in 1638; coloured, 8*s*. 6*d*. in 1616; and mingled, 4*s*. in 1619. Children's stockings are 1*s*. 3*d*. in 1620, and 1*s*. 8*d*. in 1650.

Silk stockings are found between 1624 and 1673. At first they are very dear. In the first entry, a purchase by a person at Willesden, they are 28*s*. In the next they are bought by Caryll at 37*s*. In 1651 Dering gives 23*s*. for a black pair. In 1653 Master gives 16*s*.; in 1655, 22*s*., these being pearl coloured; and in 1660 a pair at Horsted Keynes costs 21*s*. From this time they are between 11*s*. and 15*s*., a result I think due to the development of the trade with France. An average of eighteen entries gives nearly 17*s*. a pair. In 1675 Master buys clothing for his boy, and in it a pair of silk stockings at 7*s*. I have found in the same year a price of 15*s*. 6*d*., the stockings being described as knitted.

Socks are found six times after the middle of the seventeenth century. The average price is 7*d*. They were probably felt soles, to put into boots or shoes. Before proceeding to the next important items, I may say that thread, bought by the pound, is entered in nine years from 1590 to 1660. The average price is 2*s*. 4*d*.

Shoes for men, women and children, and sometimes designated as Spanish, sometimes as waxed, are found frequently. The price rises considerably after the Civil War. Before this period they were from 1*s*. 6*d*. to 2*s*. 8*d*., the highest-priced article, in 1598, being described as Spanish, and the price being given again in 1611. I have discovered nothing between

1625 and 1649. From this time the price varies between 3*s.* 10*d.* and 7*s.*, women's shoes being sometimes 9*s.* and 10*s.* Servants' shoes, even after the rise, are from 2*s.* 6*d.* to 2*s.* 8*d.* Spanish shoes, 2*s.* 8*d.* in 1598 and 3*s.* 6*d.* in 1617, are from 4*s.* 6*d.* to 5*s.* after the rise. Waxed shoes are found only between 1654 and 1666. An average of twenty entries before the Civil War gives 1*s.* 11¼*d.* the pair, the average of eighteen entries after the war is 4*s.* 11¼*d.* The average of Spanish shoes is 4*s.* 5¼*d.*, of waxed shoes, taken from ten entries, is 4*s.* 8*d.* A pair of hose and shoes together in 1616 cost 5*s.* At this time hose and shoes cost about the same money. In 1674 and 1675, Duxbury, the gunpowder dealer in London, buys army shoes at from 28*s.* to 22*s.* the dozen, buying others for his own use at 4*s.* a pair.

Boots are again of varied price. They are bought at Chester at 3*s.* 4*d.* in 1585, and at 3*s.* 6*d.* at Theydon Gernon in 1604. Before the Civil War the highest price is 11*s.* The average of twelve entries during this period is 8*s.* 10¼*d.* The average of eleven entries after that period is 15*s.* 5½*d.* Waxed boots are bought three times. Here the average is 25*s.* 4*d.* A pair of slippers is 4*s.* in 1660; a pair of spatterdashes is 10*s.* in 1693.

A shirt is bought for 3*s.* 2½*d.* in 1603; and one for a boy in 1604 is 1*s.* 8*d.* A frieze jerkin is 4*s.* 1½*d.* in 1603; a flannel waistcoat 5*s.* 6*d.* in 1585. A quilted cap is 1*s.* 4*d.* in 1688; a skull-cap 1*s.* 10*d.* in 1588; and a wrought cap 15*s.* in 1616. A girdle is 4*s.* 6*d.* in 1630; a leather belt 10*s.* in 1659; a hair-belt 10*s.* in 1660; a waist-belt 28*s.* in 1666; a silver belt 48*s.* in 1665, and a black fringed belt 55*s.* in 1655. A woman's hood is 7*s.* in 1667, bone lace 4*d.* a yard in 1620, and gold lace 3*s.* and 12*s.* an ounce in 1620.

Here it may be convenient to refer to such entries of sewing-silk as have been found. I have found it twenty-seven times in my accounts, and the average of these entries is 2*s.* 1¾*d.* the ounce. It is quoted as low as 1*s.* 4*d.* the ounce, and as high as 3*s.* But the commonest price is that which I have drawn from all the entries.

I may also refer to entries of pins by the thousand. These occur between 1586 and 1686, at prices between 5*d.* the earliest, and 1*s.* 2*d.* in 1659. The average price of fourteen entries is 9½*d.* Papers of pins are also found in 1654, at 3*d.*

In my third volume I was able to make a single entry of a clock, bought in Oxford in 1505, but of no watch. The use of these conveniences becomes more familiar now. In 1585 Lord North gave £10 for a striking clock. In 1623 King's College bought from Henry Stone a London clockmaker a chapel clock for £18. In 1639 Eton College bought a clock for £11. In 1655 the owner of Horsted Keynes bought a clock for 50*s.*, which was of course a house-clock. In 1656 New College gave £7 10*s.* for a quarter-clock. In 1659 Winchester College bought a new clock and chimes for £34; and in 1670 King's College made another purchase, paying £40.

In 1588 Lord North bought a watch for 70*s.* In 1675 Caryll gave £12 for a watch. In 1684 a silver watch in London is bought for £3 15*s.*, and in 1687 another watch is purchased for £3. A sundial costs 5*s.* in 1658; a barometer 35*s.* in 1687.

ARMS. Arms in the latter half of the sixteenth and in the seventeenth centuries were partly for ornament, partly for use, and the use is either against actual war or private violence. When in 1584 Lord North buys himself a gilt dagger for 20*s.*, and in 1585 a rapier and dagger for 30*s.*, and a gilt rapier for 20*s.*, and when in 1670 Master purchases a silver sword for 21*s.*, the arms are ornamental. When, in 1587–8, arms are purchased in view of the risks of a Spanish invasion, preparation is being made for war; and towards the latter end of the period it will be found that fire-arms are provided against the risk of highway robbery, a risk which was very constant after the Restoration and the dissoluteness which Charles made the fashion.

In the year 1587–8 Lord North gives an illustration from his private accounts of the manner in which hundreds of noblemen and gentlemen, corporations civil and academical,

strove to meet the crisis. It is plain that he undertook to raise fifty horsemen. He bought several horses in this year, but probably most of his recruits were able to mount themselves. He had numerous saddles, and indeed bought these conveniences constantly. He buys a suit of black armour at 120*s.* for himself or his deputy, twenty-seven suits of demi-launce armour, fifty lances, fifty horsemen's coats and twenty-eight other coats, ten petronels, and ten halberts. His own armoury supplied him with what else was needed. He also buys two cwt. of gunpowder at £5; and I cannot but think that the fifteen new hogsheads were laid in with the object of extra brewing. The extraordinary expense to which he was put on this occasion will be found to amount to £183 1*s.* 8*d.*, and if, as we may reasonably infer, hundreds of private individuals did the same, the volunteering must have been very general. If Parma's troops had landed, the soldiers would have been a poor match for Spanish veterans, but the country was undoubtedly in arms.

Shuttleworth contents himself with buying four hundred small steel plates to sow on or quilt into his coat. They must have been small, for the whole cost only 8*s.* The Norwich corporation buys a petronel at 26*s.*, and thirteen cwt. of gunpowder, the highest price being given for Hamburg powder. They probably had a fairly furnished armoury. The cost to the corporation was £76 8*s.* 8*d.* Oriel College bought halberts, partisans and black bills, at a cost of £11 1*s.* 8*d.*; Corpus Christi College bought calivers and dags at a cost of £5 17*s.* 4*d.*; and Oriel and Corpus Christi were then poor colleges. The danger passed away, and the armour was hung up in the hall, to be furbished perhaps anew in the Civil War which was to break out more than half a century afterwards[1]. In 1596, when there were rumours of other

[1] There is a proclamation of Elizabeth, dated Dec. 2, 1594, forbidding the wearing of secret armour, and the carrying of pocket dags, especially by artisans, on the ground that robberies and frays have been increased by the practice. Bodley, Arch. E.

difficulties, Shuttleworth gave 20*s.* for a case of pistols. In 1595 Lord Pembroke buys a rapier and dagger for 10*s.* In 1620 Shuttleworth buys a pair of French pistols for 30*s.*, five muskets with rests and moulds at 14*s.*, and a sword and belt for 7*s.* In 1621 he buys another musket for 13*s.* 6*d.* In 1627 match is bought at Chatham at 28*s.* the hundred. In 1639 New College buys 10 ells of match at 2*d.*, and a small quantity of powder.

The Oxford Colleges suffered severely during the siege. They were compelled to pay considerable sums towards the defences on the most vulnerable parts of the city, the north and east. Thus, for example, New College paid £4 10*s.* a week to the fortifications, and other Colleges proportionately to their means. The All Souls College account shows that this College paid £96 in 1642–3 to the King's infantry, besides paying for labour in entrenchments before Magdalen Bridge and Christ Church. Besides spending considerable sums, they incurred debts, Magdalen College being £1000 in debt at the conclusion of the siege owing to advances made to the King's cause.

In 1650 Eton College buys two suits of armour at 20*s.*, and two pairs of pistols at 17*s.* and 15*s.*, and New College three pairs at 17*s.* 6*d.*, 20*s.*, and 15*s.*, and a fourth with holsters at 23*s.* In 1652 S. John's College, Cambridge buys a pair of pistols at 18*s.*, and a pair of holsters at 3*s.* 6*d.* In 1654 New College buys another pair at 20*s.* In 1650 Dering pays 26*s.* for a sword. A curious item in the New College account of 1650 is that of fifteen rings for the gentlemen-at-arms, bought at a cost of £15 8*s.* 6*d.*

Among the accounts preserved in the Pepys MSS. of the Rawlinson Collection (A. 176. 8) is an estimate of the cost which would be incurred for raising a force of 26,000 foot, of four regiments of horse each with 490 men, and 1,920 dragoons, in so far as supplying them with arms is concerned. The date of the estimate is 1659.

The equipment is 17,334 muskets and bandiliers at 16*s.* and

2*s.* 4*d.* each; 8,666 pikes at 4*s.* 6*d.*; 260 partisans at 10*s.*; 780 halberts at 8*s.*; and 520 drums at 25*s.*

The horsemen are to have 1,960 pairs of pistols, at 18*s.* a pair; 1,960 pairs of holsters, at 5*s.*; and 1,960 suits of back and breast armour, at 50*s.* a set.

The dragoons are to have 1,920 snaphance muskets, with belts and swivels, and the cost is to be 20*s.* each.

In 1674 brass blunderbuses cost 30*s.* each; musquetoons, 18*s.*; snaphance muskets, 12*s.*; pistols are at 12*s.* the pair, and a captain's pair is 22*s.*

In 1678 Winchester College buys arms; seven muskets at 13*s.* 4*d.*, a carbine at 12*s.*, a caliver at 12*s.*, five sets of bandiliers at 2*s.* 6*d.*, and five pairs of pistols, two pairs of holsters and bags for 77*s.* In 1694 a new birding-gun is bought in London for 30*s.*

It may be convenient at this point to refer to some purchases for navy stores and artillery which have been found. Gunpowder is found by the pound (which I have as usual put into the form of a dozen), by the hundredweight, and by the barrel. The first of these is for private consumption, the second is purchases in view of the Spanish expedition. For a long time, and until saltpetre was imported from India, it was difficult to obtain the materials for gunpowder, and the grievance caused by the intrusion of the saltpetre men is familiar to the students of seventeenth-century events.

Gunpowder is from 8*d.* to 2*s.* the pound. But the first price is in 1589, after the risks from Spain were at least temporarily over, and the second is just at the outbreak of the Civil War. The average price of fifteen entries is a fraction over 14*s.* 3½*d.* the dozen pounds, or about £6 5*s.* the cwt. Of course in small quantities gunpowder would naturally be much dearer than in bulk. The purchases by the cwt. are all made in view of the Spanish Armada, and have been referred to above. Those by the barrel are in large quantities for navy stores in 1653 and 1654. In the first year they are at 79*s.* 6*d.* the barrel. In the second three prices are given, two

from the accounts, 79*s.* 6*d.* and 75*s.*, the third from Pepys' papers, who gives a price of 72*s.* 6*d.* for this year, when he is comparing the cost of the navy during the Commonwealth with that after the Restoration. The worthy secretary says nothing about the comparative efficiency during the two periods, or of the comparative capacity of Blake and Herbert. In 1674 and 1675 Duxbury sells powder at from 55*s.* to 58*s.* the barrel.

I have found one entry only of saltpetre by the ton. It is £100 in 1653. I have found it by the pound in 1684 at 1*s.* 6*d.*, i.e. a little dearer than gunpowder at the same date. The purchase is made in London.

Brimstone, generally in the form of meal, is bought by the cwt. and the ton for the manufacture of powder. Its price varies very considerably, even in the same year. The navy accounts which I have seen are in the Bodleian, and are probably part of the Pepys papers. Of course, after they had been audited, there was no further interest in them. Pepys however had a whim for collecting papers, and Rawlinson a whim for buying them. I am under great obligations to both.

Brimstone is found from 1599 to 1672. The price oscillates between £19 and £28 the ton. The highest prices are found in time of war, or in preparation for war; as in 1621, when the country was anxious to assist the unlucky King of Bohemia; in 1626, when it was actually, though in a poor way, at war; and in 1642 and 1645, when it was at war on a considerable scale. The average price of thirteen entries by the ton is £23 8*s.*

Tar, purchased for naval purposes, is sold by the last of fourteen barrels. An average taken from nineteen entries between 1600 and 1687 is £9 12*s.* 3*d.* The price is lowest, £6 the last, in 1687, and highest in 1627, when it is £12. Pitch is also bought by the last, and by two kinds of barrels, great and small band, the latter being about half the price of the former. The last of pitch varies between £6, when I suspect

that the barrels are small, and £18 (1648), when they are certainly large. It is £11 the last in 1600. In 1672 it is £11 the ton.

Black rosin is from £6 5*s.* the ton in 1687, a time of peace, to £18 in time of war. In 1599 it is £7; in 1672, £12 15*s.* (when there was war with the Dutch). In 1642 it is £11 6*s.* 8*d.*; in 1645, £11. It is occasionally bought by the pound for private use.

Train oil by the tun, sometimes called Muscovy oil, is also bought for the navy. I have found six entries between 1599 and 1687, four at £20 the tun, two at £18.

Two other kinds of stores have to be treated, soap and starch. There are two qualities of the former, common and sweet, the latter being sometimes called black. As a rule the latter is four times as dear as the former. The two kinds are sold by the pound, but soap is also sold by the firkin. Common soap is found seven times by the pound, always at 1*d.*, or 1*s.* the dozen.

Sweet or black soap is found thirty-one times, between 1583 and 1698. Up to the early part of the seventeenth century it is between 3*s.* and 4*s.*; thence it does not fall below 4*s.* From 1633 to 1698 it is between 4*s.* and 7*s.* the dozen, though more frequently 4*s.* The average is 4*s.* 0½*d.*

Soap is also bought by the firkin of 64 lbs. In this form the price varies from 10*s.*, found in 1653 and 1598, to 25*s.*, found in 1633, or 22*s.* in 1696. In both these later years the purchases are made in London. In 1633 Caryll buys a firkin of brown at 18*s.* 6*d.*, a firkin of new at 16*s.* 6*d.*, and the owner of Mendham a firkin at 25*s.*, besides purchasing a small quantity at a higher price per pound than is found anywhere else. The general price by the firkin is from 15*s.* to 17*s.* The average from twenty-seven entries is a little over 15*s.* 7¼*d.* This is nearly 3*d.* a pound, and implies, I conclude, that this soap was of the better quality, and that there was a considerable advantage to the purchaser in bulk. The commoner kind must have been from very inferior material. The same fact is

brought out in the Mendham purchase of 1633, where the firkin is 25*s.* and the dozen lbs. 7*s.*

Starch is of very different prices. I have found it as low as 2*s.* 6*d.* a dozen, and as high as 12*s.*, when it is spoken of as white starch. It is of course much more common in the first forty years of the period than it is at a later date, when the fashion of starched ruffs went out. The common price is 4*s.* the dozen pounds. The average of twenty-four entries is 4*s.* 1¼*d.*

Blue starch, i.e. starch coloured with stone blue, is found three times at 14*s.* the dozen in 1608, and 16*s.* the dozen in 1610 and 1616. Stone blue, by which I suppose is meant smalt, is 3*s.* a pound in 1698, when it is bought it seems to colour starch.

Feathers are 6*s.* a dozen in 1583, 6*s.* 6*d.* in 1584, and 7*s.* in 1663.

The foregoing subjects are all more or less related to certain localities in a home, mansion or college, these localities being of a more or less distinguishable character. There yet remain a number of objects which cannot be colourably referred, and, singularly enough, the first of these on which I have to treat is the only article from which I can construct decennial averages. I have forty-eight entries of wheelbarrows, so scattered over the period that no decade is without a representative, though some decades are fuller than others. The wheelbarrow was used everywhere, in the field, in the garden, in the offices, in the stable especially, and as occasion arose even in every apartment on a ground floor.

The following are the decennial averages :—

1583–1592 ...	3*s.* 6½*d.*	1643–1652 ...	6*s.* 0¾*d.*
1593–1602 ...	4*s.* 3¾*d.*	1653–1662 ...	10*s.*
1603–1612 ...	4*s.* 9*d.*	1663–1672 ...	8*s.* 6*d.*
1613–1622 ...	5*s.* 4*d.*	1673–1682 ...	7*s.* 4½*d.*
1623–1632 ...	4*s.* 9*d.*	1683–1692 ...	6*s.* 10*d.*
1633–1642 ...	6*s.* 0¾*d.*	1693–1702 ...	8*s.* 1*d.*

General average, 7*s.* 1½*d.*

The highest price during the whole period is at Winchester, when the College gives 12*s.* for this article. In 1653 and 1657 it costs 10*s.* at New College, and in 1664 the same price at Oriel College. The rise in price is marked, for most of the purchases throughout the whole period are made at Oxford and Cambridge. Sometimes the corporation made a bargain, but as time went on, and capitalist mechanics began to improve their position, prices became customary.

Among the duties imposed on King's College, Cambridge, perhaps among the compensations which balanced the manorial privileges which the alien priories had, and descended as liabilities to the College which was founded on the confiscation of these priories, was the obligation of building the parish pound. I have never seen this liability except on the King's College estate, for in my third volume, pp. 579, 580, there are charges for the pound and stocks at Wawes Wootton (as it should be spelt) and Grantchester, two King's College estates. In the seventeenth century the charges became more serious.

In 1608 this College sets up a pound at West Wrotham which cost £4 16*s.*; in 1636 it built a new pound at Grantchester at a charge of £10 6*s.* 4*d.*; in 1641 it did the same function at Lessingham and paid £8; in 1668 Colt's Hall cost them only £5; in 1681 they built a pound at Combe and paid £10 for it. These illustrations of social life and local government are curious. Very likely, in the case of other corporations or private individuals, the construction and repair of these enclosures was put into the bailiff's or steward's petty cash. But King's College, Cambridge, whatever else it did, kept careful accounts. It is highly probable that the outlay was remunerative, that the charge was more than met by the income derived from manorial fines, and even, after adequate detention, by the confiscation of those waifs and strays and trespassers whose owners were ignorant of their place, or whose appropriators had decamped.

There are still some items, found with tolerable frequency, on which I must comment. The principal of these are lan-

thorns, buckets, pails, brooms, and after them the residue, for in any attempt to reconstruct or to enable others to reconstruct the past life of the English people, nothing should be neglected, because everything fits into the building, if it be in competent hands. Perhaps even the price at which our ancestors obtained the conveniences of life is not less significant than the fact that they obtained them.

Some lanthorns have been already commented on, those I mean the object of whose purchase is expressed with the article. There are however a numerous residual class, between 1585 and 1684, used probably in chambers and passages, which require notice. They are of all prices, from *6d.* to *4s. 6d.*, but the general rate is from *1s. 6d.* to *2s.* There are in point of fact only three in the whole list above *3s.* In 1634 one is bought by Corpus Christi College at *4s. 6d.*, another in 1672 by Eton College at *4s.*, when it is called great, and a third in 1680 at *4s.* bought by New College. The average price from forty-four entries is *1s. 10d.*

Ordinary wooden buckets, under which are to be included entries of *situlæ*, are found from 1583 to 1692. Once the price is *4s. 6d.* in the last year in which a situla occurs, where it is probably a well-bucket. With this exception the price is between *6d.* and *2s. 6d.* The average of fifty entries, including the situlæ, is *1s. 4½d.* nearly. There is a distinct rise in price from 1620, the price before this date being rarely below *1s. 6d.*

Pails are not perhaps distinguishable from buckets, except that probably they were entirely made of wood. The lowest price is *4d.*, the highest *1s. 2d.* They are entered from 1586 to 1689. The average of fifteen entries is *9½d.*

Brooms or besoms, constantly sold by the dozen, are at all prices from *3½d.* to *2s. 6d.* The average of eighteen entries is *1s. 5½d.* the dozen. After the beginning of the seventeenth century they become decidedly dearer.

Leather buckets, to be at hand in case of fire, are occasionally purchased by the dozen. The price is from *27s.* to *60s.* They are at the first price in 1603. In 1606, 1608, and 1624

they are at 30*s*. In 1669, when they stand at 60*s*., they are bought by New College. In 1676 Winchester College purchases two dozen at 37*s*. It will be seen that they are a good deal cheaper than leather jacks.

The corbis is I suppose a basket, probably a small one for any purpose. Eight entries between 1586 and 1693 give an average of 10¼*d*. A sporta viminea is of course a wicker basket. In 1592 it costs 1*s*. 4*d*. Wiskets, a word peculiar to Shuttleworth's estate or accounts, appear to be no other than cheap ordinary baskets. They are bought by the dozen, and are generally from 1*s*. 4*d*. to 3*s*. On one occasion they are called great, and cost 8*s*. the dozen.

From time to time bolters, that is bolting-cloths, are found, and generally in the bakehouse accounts of S. John's College. In 1583 King's College buys them at 1*s*. 9*d*. In 1591 Shuttleworth gives 1*s*. 6*d*. for a bolting-cloth, and in 1702 7*d*. They then disappear from the accounts till 1684, when S. John's College gives 9*s*. for a bolting-cloth. In 1689 the price at the same place is 2*s*. 4*d*.; in 1691, 30*s*.; in 1692, 3*s*. 6*d*.; in 1693, 1694 and 1695, 3*s*. In the last two cases the cloth is said to be fine.

Tubs are from 1*s*. 8*d*. to 3*s*. in 1590 to 12*s*. 6*d*. in 1697. Unless one is informed as to their purpose, it is vain to make any attempt at discussing the price. Porringers are found by the dozen, at 6*s*. in 1589, at 6*s*. 8*d*. in 1603. In 1621 they are 12*s*., as they are in 1623, when others are bought at 9*s*., the two being distinguished as great and little. These are bought by Corpus Christi College. In the same year, New College buys pewter porringers at 6*s*. 8*d*. the dozen. I imagine that they were small pewter cups.

A stone pot is 1*s*. 11*d*. in 1583, 8*d*. in 1585, 1*s*. 6*d*. in 1586, and 5*s*. a dozen in 1642. I presume that a two and one gallon pot in 1585 is also of this ware. In 1590 a horse-load of pots is 8*s*.

A garden roller is 3*s*. in 1601, 15*s*. in 1672, 5*s*. in 1693, 12*s*. in 1694. An iron crow is 2*s*. 4*d*. in 1602. A grindstone

is 7*d.* in 1588, 3*s.* 4*d.* in 1594, 4*s.* in 1602. In 1599 the Navy accounts tell us that 3*s.* 4*d.* is the price of a grindstone four feet in diameter, 3*s.* the price of a smaller one. Hoops are 4*s.* a hundred in 1594 and 1595, a pump shoe 1*s.* in 1591, wedges 1½*d.* each in 1599. Meal sieves are 7*d.* in 1587, 4*d.* in 1589, 5*d.* in 1598, and 1*s.* 4*d.* in 1646. A candle-box is 6*d.* in one place in 1602, and 1*s.* 6*d.* in another; in 1617 it is 3*s.* 4*d.* A tinder-box is 1*s.* in 1618 and 1639, 10*d.* in 1635.

A baker's peel is 1*s.* in 1607, 1*s.* 6*d.* in 1611, 3*s.* 4*d.* in 1665. The last is bought at Winchester. A flasket is 2*s.* 3*d.* in 1611, 1*s.* 6*d.* in 1617. In 1615 Corpus Christi College gives 8*s.* for seven boxes to put in the College tower, in 1621 pays 5*s.* for a College chest, and in 1627 gives 22*s.* for two cases of boxes for the tower, no doubt to hold deeds. In 1612 Shuttleworth pays 26*s.* 8*d.* for a sealed chest. In 1647 All Souls College buys a new chest for 15*s.*

Some articles may be referred to the bursary. Money-bags cost from 4*d.* to 1*s.* 4*d.* They were generally made of leather, and some, older than the time I am writing of, are in the College chests. The average of nine entries is 8¾*d.* A leather satchel in 1620, with perhaps the same purpose, is 8*d.* A quart of ink in 1698 costs 1*s.*; a standish in 1621, 2*s.* 6*d.* Almanacks are on an average 2*d.* each. Pens in 1683 are 2*s.* the hundred. Wafers in 1649 are 1*s.* 11*d.*; in 1650, 2*s.* a pound. Sealing-wax is 1*s.* 4*d.* a pound in 1586, 1602, and 1603. Pin-dust in 1583 is 8*d.* a pound. In 1593 a pen and inkhorn is 4*d.*; a note-book in 1621 is 1*s.*; a sand-box in 1658, 10*d.* A pair of compasses in 1621 is 5*s.* Two College seals in 1648 cost 102*s.* 6*d.* An average of eight entries of counters is 1*s.* 8½*d.* the set, and the entries are found till 1654, for in this year Corpus Christi College gives 7*s.* for two boxes and six dozen ivory counters.

Scales and weights, especially gold weights, were of great importance in the bursary. Foreign money, particularly at the end of the century, circulated largely in England, or perhaps we hear more of it when monetary questions became

important. Scales and weights are at 5*s.* 11*d.* in 1589, at 4*s.* 8*d.* in 1593, at 6*s.* 9*d.* in 1619. In 1588 weights alone are 2*s.* 6*d.*, and a pile of weights is 5*s.* 6*d.* in 1609.

Gold weights are priced at 1*s.* 8*d.* in 1618, at 5*s.* 6*d.* in 1619, at 6*s.* and 7*s.* 10*d.* in 1623, at 6*s.* 8*d.* in 1632; a pair of scales and two sets of gold weights cost Caryll 8*s.* 9*d.* in 1641; a pair of gold weights is 4*s.* 6*d.*

In some places corn-rents were received in kind. In 1601 a peck and half-peck measure cost 1*s.* 8*d.* In 1592 a bushel measure is 2*s.* 6*d.*; in 1607, 5*s.* In 1623 and 1636 an hour-glass costs 8*d.* In 1590 a vessel stamp is 2*s.*; in 1618, 4*s.*; and in 1613 a brand-mark for wooden goods is 1*s.* 6*d.*

There are a few entries which refer to sport and amusements.

In 1583 Lord North gives 66*s.* 8*d.* for a falcon. In 1642 and 1643 hawks are bought at £2 each. Arrows are 3*s.* a dozen in 1602. A bow is 8*s.* 6*d.* in 1612, a quiver 2*s.*, and the arrows 4*d.* each. In 1675 a mastiff costs 2*s.* 6*d.*, and in 1692 a spaniel is bought for 43*s.* In 1632 a hawk's bells and gesses are 1*s.* 3*d.*, and in 1673 a dog's collar is 3*s.* 6*d.*; a dog's chain is 1*s.* 6*d.* in 1697. In 1649 a perspective glass is 4*s.* In 1685 a net is bought for 46*s.* 8*d.* at Canterbury; in 1597 a partridge net for 2*s.*; in 1599 a teal net for 1*s.*; in 1601 a sparrow-hawk net for 3*s.*; another net for 6*s.*; and a fish net for 1*s.* In 1602 a fish net is only 8*d.*, and in 1696 Caryll buys two setting nets at 15*s.* each. A rat-trap costs 1*s.* 6*d.* in 1636, 4*s.* 6*d.* in 1696. A mouse-trap is 4*d.* in 1607 and 1608, but a steel mouse-trap in 1674 is 2*s.* 6*d.*, and a trap for the pigeon-house in 1645 is 2*s.* 6*d.* Lastly, bird-lime in 1602 is 5*d.* a pound. Cross-bow thread is 1*s.* 4*d.* a pound in 1600.

In 1620 Shuttleworth gives 3*s.* 4*d.* each for two fiddles. They must have been rude instruments. In 1666 Master pays £14 for a viol. He also gives 25*s.* for a pair of canaries, and 21*s.* for a double cage for them, in 1660. In 1668 his boy's coral and coral necklace cost 27*s.* In 1686 four nightingale cages are bought in Oxford at 4*s.* 6*d.* each. In 1677

Winchester College gave 1*s.* for a fox; in 1691 New College gave 5*s.*, and in 1699 All Souls College paid 1*s.* In 1616 a chess-board is 8*d.*

In 1650 a lady's thimble cost 1*s.* 8*d.*; in 1655, 2*s.*; her fan, in 1659, 10*s.* Pen-knives are 5*d.* to 6*d.* up to 1646; in 1698 one is 2*s.* Whalebone is 4½*d.* the yard in 1627. Combs are from 9*d.* to 1*s.*, generally the latter; but a lady's is 3*s.* in 1656. A barber's brush is from 10*d.* to 1*s.* A pair of razors costs only 5*d.* in 1588; but in 1653 Master gives 2*s.* 6*d.*, and in 1668 9*s.* for one. A pair of pattens is 10½*d.* in 1621. A hat-case is 6*s.* 8*d.* in 1641; and, since I must bring it in somewhere, the city of Oxford gives 5*s.* 4*d.* for a cucking-stool in 1616.

Matting is sold by the dozen yards. It is 8*s.* 4*d.* in 1600, 2*s.* in 1633 (when it is said to be bulrush), 1*s.* in 1660 (probably narrow for the College chapel), 14*s.* at the same place in 1665, 8*s.* in 1672, and 6*s.* in 1696. Besides a water-pot in 1618 at 3*s.*, I have found a brass watering-pot in 1626 at 6*s.* 6*d.*, another in 1664 at 3*s.* 4*d.*, a copper one in 1666 at 2*s.* 2*d.*, and another in 1685 at 4*s.* 6*d.* Flower-pots are 1*s.* 6*d.* the dozen in 1695.

Spectacles are 1*s.* in 1587 and 1596, 9*d.* in 1620. A spectacle case is 6*d.* in 1696. Brushes are 6*d.* in 1596, 11*d.* in 1597; and painters' brushes 4½*d.* in 1687. Candlewick is 1*s.* a pound in 1585, 1*s.* 2½*d.* in 1616, when it is called canvas; cotton wick 2*s.* a pound in 1621, and coarse wick 6*d.* in 1621; 10½ dozen of what must be very common candle-wick is bought by Lord Spencer in 1602 at 5*s.* the dozen. It is also bought at 7*s.* the dozen in 1603.

In 1589 Shuttleworth buys a quarter of a pack and one pound of Irish yarn for the large sum of £4 14*s.* 9*d.* The nearest price of linen yarn to this year in the minor products is in 1602 at 8*d.* The pack must therefore have been at this rate about two hundredweight, and Shuttleworth's quarter pack about 56 lbs.

In 1629 Eton College resolved to have a private wharf on

the Thames, and in order to carry this out, they drove piles into the bed of the river. The piles were armed on the pointed end with iron plates fastened with brads, and the cost of this preparation is given at 18*s.*

In an earlier page I commented on certain lanthorns employed in the various offices, and subsequently on those which are not so distinguished and appear to be of a commoner kind. There are still a few other kinds. A great globe lanthorn is 8*s.* in 1610, 6*s.* 5*d.* in 1615, and 7*s.* 8*d.* in 1686. A double plate lanthorn is 10*s.* 3*d.* in 1619, and 10*s.* in 1623. Dark lanthorns are 3*s.* and 3*s.* 4*d.* in 1627. But the admiral's lanthorn, carried from the mast-head, costs the navy board 70*s.* A boat is bought by Eton for 94*s.* in 1659; and another in 1672 at £6 10*s.*

A few drugs have been found among Lord Spencer's accounts and elsewhere. In June, 1603, he buys an ounce of galbanum at 6*d.*, one of ammoniacum at 6*d.*, one of 'bedelyum' at 1*s.*, one of opoponax at 2*s.*, and next month a quart of aqua vitae at 6*s.* the gallon. These medical gums (I presume that the third is bdellium) appear to have been purchased for human use. In the next year he buys bold armenick, i.e. Armenian bole, at 6*d.* a pound, and præcipitaster at 2*d.* It is not easy to guess what the latter is. Armenian bole is also bought in 1653 at 2*d.* Alum and rock alum are from 4*d.* to 1*s.* the pound. In 1698 Venice treacle, the turpentine I believe of the stone pine of Italy, is bought at 7*s.* the pound. Aqua composita at 7*s.* 8*d.* the gallon in 1593, bezoar water in 1665 at 16*s.*, are also I conclude medicated spirits. A glyster pipe at 6*d.* is found in 1587, and again in 1633 at 1*s.* 2*d.*

Cork for casks and bottles does not appear to have been used till the seventeenth century. The earlier entries which have come under my notice and are contained in the Sundries of the third volume were for nets. Nor are the entries many now. I first find it in 1627 at 4*d.* and 6*d.* a pound. In 1632 it is again 4*d.* In 1676, 1677, and 1679 it is 6*d.* It was no doubt bought afterwards, but is included in the minor

charges of the brewery and cellar. In 1692 bottle corks are at 13*s.* the gross, in 1698 at 2*s.* 6*d.* The difference is probably one of quality. Bungs are 1*s.* a dozen in 1698 and 1699. Wine bottles are 6*s.* a dozen in 1631; 3*s.* in 1697; and from 2*s.* 6*d.* to 3*s.* in 1702. At the end of the century, wine bottles are manufactured in England.

The colleges, especially those of Oxford, were constantly laying out their walks with gravel. It is bought by the load, without carriage, and probably designates little more than the price of labour at first. Gravel, though not of the best quality, is abundant near Oxford. At first it costs 6*d.* the load, then 8*d.*, then 10*d.* In the third decade of the seventeenth century, so often marked by a rise in prices, it rises to 1*s.*, at which it generally stands, though I have found it at 8*d.* in 1659. In 1668 New College buys a large quantity, 92 loads at 10*d.*, and in the next year a smaller quantity at 10½*d.*

Basins at 1*s.* 9*d.* in 1586, a pile of graters in 1588 at 2*s.*, a halter in the same year at 2*d.*, and a great jug at 1*s.* 5*d.* and a pipkin in 1589 at 8*d.*, have been noted. A gallon of goose-grease costs 2*s.* 8*d* in 1585, and a pair of mill handles in 1587 2*s.* 10*d.* Verdigris is 3*d.* a pound in 1683, a board by which to teach mathematics costs Corpus Christi College 3*s.* in 1653, and wire-work is 8*d.* a yard in 1665. Six pairs of globuli cost 5*s.* a pair in 1690, being bought by Magdalen College. Cobweb brushes cost 6*d.* each in 1695, and hand brushes 8*d.* in the same year. Noggins are 6*s.* a dozen in 1664, and 3*s.* 6*d.* in 1670.

In 1585 a gallon of sage ale costs 7*d.* In 1685 a barrel of mum is bought in London for 67*s.* 6*d.* The inclusion of this article in the excise laws is proof that it was consumed in England. It is beer in which malted horse-beans are used with malt, and it is still I believe manufactured in Brunswick and Hanover. Taps are 3*s.* a hundred in 1606, of course wooden. A quart copper pot is 4*s.* 4*d.* in 1671.

In 1659–60 New College gives a gold chalice to the King

at the cost of £177. In 1664 it gives £2 for a spur royal; in 1674, 45*s.* for a double spur royal. In 1660 it gave, as I have already observed, a pair of gloves and two spur royals to the Chancellor.

It was a custom to hang a curtain before such pictures as the owners set value on. A curtain and rings cost 8*s.* in 1626. A carpet of darnax costs 6*s.* 6*d.* in 1583; one of green cloth in 1584, 23*s.* 4*d.*; and another in 1692, 10*s.* 6*d.* In 1584 a green cloth of the window is 6*s.* 8*d.* Double casements are 5*s.* 4*d.* in 1598, and 5*s.* 10½*d.* in 1602. Thirteen red skins are bought for making cushions at about 1*s.* 2*d.* each in 1635. Bell wheels cost 12*s.* each in 1624, and the cording of a pair of scales 2*s.* 4*d.* in 1604.

In 1583 Corpus Christi College buys a copy of the Oxford Statutes from the Vice-Chancellor's man for 2*s.*, and in 1589 Oriel College gets a copy from the bedel for 1*s.* A spinning-wheel costs 8*d.* and 9*d.* in 1587; 2*s.* 4*d.* in 1615. Sail needles are 5*s.* a hundred in 1694. Clock wire is at various prices; 7*d.* a pound in 1584; 10*d.* and 1*s.* 4*d.* in 1587; 2*s.* in 1604; in 1607, 1*s.*; in 1635, 1*s.* 4*d.*

In the charges for the King's College organ in 1605, five pounds of white wire is at 10*d.*, 7 lbs. of yellow wire at 1*s.* 8*d.*, and 22 lbs. of tin glass at 3*s.* White wire is I suppose iron tinned, yellow wire brass, but I have no idea what tin glass is. In 1653 plaster of Paris is 4*s.* a cwt., a lattice to a larder 4*s.*, to a latrina, 2*s.*; while in 1602, lattice by the foot is 3½*d.* In 1665 a voider of sweetmeats is 20*s.*

I have not perhaps in this long chapter on the Sundries contained in my sixth volume noted every particular. I have however at least taken all which serves the purpose of enabling my reader to reconstruct the equipments of a seventeenth-century house, and to realise what were the conveniences, far short indeed of modern experience, but undoubtedly much in advance of what existed a century previous.

The sundries contained in Houghton's first six years, for he does not give these prices in the last six years of his volumes,

have been put under the following heads: soap, bacon, oil of different kinds, drugs, iron, and spirits. Soap is sold by the barrel of 256 lbs. or the firkin of 64 lbs. In the first year, 1691, it is quoted by the barrel at an average of 72*s.* In the second year it varies by the barrel from 72*s.* to 74*s.*, and by the firkin from 19*s.* to 18*s.* In 1693 it is from 28*s.* to 22*s.* the firkin. In 1694 it is 19*s.* in the second quarter, and rises to 26*s.* 4*d.* in the fourth. In 1695 it is between 21*s.* and 25*s.*; in 1696 between 21*s.* and 21*s.* 6*d.* It is therefore dearer than in the earlier years of the century.

Bacon is 3*s.* the stone (of 8 lbs.) in 1691, ranges from 3*s.* 8*d.* to 4*s.* 4*d.* in 1693, is from 4*s.* to 3*s.* 8*d.* in 1694, is steady, at 3*s.* 8*d.*, in 1695, and from 3*s.* 8*d.* to 4*s.* in 1696.

Olive oil is from 4*s.* 6*d.* to 3*s.* 8*d.* a gallon in 1692, from 2*s.* 8*d.* to 4*s.* 4*d.* in 1693, after which no intimation is given of its price. In 1693 Houghton also gives the prices of rape oil by the tun. This article I presume was of foreign origin. It fluctuates in the first and second quarters, that is, during the late autumn and winter most, between £27 10*s.* and £24.

The price of oil of turpentine by the cwt., used I conclude chiefly to mix with paints, is regularly supplied till no information of the kind is given. In 1693 the price is between 72*s.* and 65*s.*, in 1694 between 56*s.* and 80*s.*, this last price occurring at the end of the year. In 1695 the price is greatly exalted. It rises steadily from 80*s.* to 128*s.*, and then falls to 110*s.*, at which it stands for the whole of the year 1696.

The drugs and chemicals which Houghton gives are alum, cerussa, potash, and copperas. He also quotes the price of civet by the ounce, and of saffron by the pound. Alum rises from 22*s.* to 24*s.* the cwt. in 1693, falls from 24*s.* to 20*s.* in 1694, and is at 20*s.* in 1695 and 1696. Cerussa is at 24*s.* the cwt. till the end of the year 1696, when it falls to 20*s.* Potash is at £16 the ton till the middle of 1694, when it rises to more than double, and no further quotations are given. Copperas, of course sulphate of iron, is from 7*s.* to 7*s.* 6*d.* a cwt. in 1693; 7*s.*

in 1694; from 6*s.* 6*d.* to 8*s.* in 1695; and from 6*s.* 6*d.* to 5*s.* in 1696. All these articles were I conclude of English origin, except potash.

Civet is from 32*s.* to 22*s.* an ounce in 1693; from 22*s.* to 15*s.* in 1694; from 15*s.* to 18*s.* in 1695; and remains at 18*s.* in 1696. Saffron, as might be expected, fluctuates greatly. It falls steadily from 85*s.* a pound to 38*s.* in 1693. In 1694 the highest price is 56*s.*, the lowest 30*s.* In 1695 the highest price is 85*s.*, the lowest 36*s.*; and in 1696 the highest is 65*s.*, the lowest 36*s.* It still had a repute as a medicine.

Iron is on an average £16 17*s.* 6*d.* a ton in 1693; £16 10*s.* in 1694. In 1695 it fluctuates very much, going down as low as £10 10*s.* and rising suddenly to £19. The average for the whole year is £15 13*s.* 2*d.* In 1696 it is unchanged at £18. The price I conclude is of English produce.

Houghton also gives the price of spirits; molasses, in 1693 of cider spirit, of common spirit, and of rectified, with another quality of rectified high. Molasses spirit is from £53 to £48 the tun in 1693, at £50 afterwards. Cider spirit is £52 the tun. Common is from £34 to £29 in 1693; from £30 to £22 in 1694; from £27 to £23 in 1695; and at £23 in 1696. The ordinary rectified spirit is at from 4*s.* 6*d.* to 5*s.* the gallon in 1693. It is not quoted again, but high rectified is constantly at 6*s.*

A few materials are also given. Coney wool, used for the manufacture of hats, is from 11*s.* to 9*s.* a pound in 1693; falls from 9*s.* to 7*s.* in 1694; rises from 7*s.* to 8*s.* in 1695; and falls again to 6*s.* in 1696. Flax is 48*s.* the cwt. in 1693 and 1694. Glue is from 40*s.* to 42*s.* the cwt. in 1693; is at 40*s.* in 1694; is from 40*s.* to 50*s.* in 1695; and from 40*s.* to 48*s.* in 1696. Wire is quoted by the stone. It is from 7*s.* 2*d.* to 5*s.* in 1693; at 6*s.* in 1694; from 6*s.* to 6*s.* 6*d.* in 1695, remaining at the latter figure in 1696. The highest price of gunpowder in 1693 is 115*s.* the cwt., the lowest 95*s.* It falls from 95*s.* to 70*s.* in 1694; goes up from 90*s.* to 100*s.* in 1695; and remains at 100*s.* in 1696, except for a short time in March, when it drops to

77*s.* Starch is from 4*s.* to 5*s.* a dozen in 1693; from 4*s.* to 3*s.* 6*d.* in 1694; and from 4*s.* 6*d.* to 3*s.* 6*d.* in 1695.

Leather is sold by the pound. In 1693 calf is from 1*s.* 0½*d.* to 11½*d.* the pound; in 1694 from 11½*d.* to 1*s.* 6*d.*; in 1695 at 1*s.* 6*d.* to 1*s.* 7*d.*; in 1696 at 1*s.* 7*d.* Sole is from 6*d.* to 7*d.* in 1693; from 6*d.* to 8*d.* in 1694; from 8*d.* to 9*d.* in 1695; and at 9*d.* in 1696. Upper leather is from 7½*d.* to 7*d.* in 1693, and at 7*d.* in 1694.

The great variation in the price of some of these commodities seems to illustrate the rapidity with which a fortunate or shrewd trader was frequently able to accumulate gain rapidly. It was especially in trade that England made progress during the last half of the seventeenth century, and the exceptional profits of commerce had not a little to do with developing those schemes of foreign occupation and stimulating the commercial wars which are so characteristic of the age which succeeded that which I have been treating and illustrating.

I had intended to omit an imperfect table of wax and oil for domestic use, which I had constructed, as the record is so broken. But it may perhaps be better to say a few words on the evidence which is printed in vol. vi. p. 652. Wax was rarely used for purposes of light or for churches, except during the brief period of Laud's ecclesiastical authority. Nor is it always easy to determine whether wax was purchased for candles or for sealing documents. Similarly it is not obvious to decide whether oil is purchased for artificial light or for the table.

Of wax there are forty-two purchases in thirty-four different years, and of these sixteen are of the eleven years 1632–1642, during which the ascendancy of Laud was at its height, and some few colleges had adopted the ornate ritual which he suggested. I think it will be seen, on glancing at the entries during this period, that the price of the article is a good deal heightened. Before this epoch the price ranged from 10*d.* a pound to 1*s.* 6*d.*, during this period it is never below 1*s.* 6*d.*, and rises not

infrequently to 2*s.* After the Civil War was over the price falls to below the average at which it stood before the Laudian influence was at work. After the Restoration it rises again; but now the occasional entries refer to the new luxury which growing wealth suggested. The average price of the forty-two entries is 1*s.* 6¾*d.* the pound.

During four consecutive years, 1693–1696, Houghton gives the price of wax, yellow by the hundredweight, white by the pound. In the first year yellow wax is 113*s.* 9*d.* the cwt.; in the next year the price is 112*s.*; in the next the average is 135*s.*; and in the fourth and last 138*s.* White wax is almost unchanged at 1*s.* 10*d.* the pound.

Oil is found thirty times in twenty-eight years, some of the earlier entries being doubtfully of salad oil, as for example some of Shuttleworth's. In 1632 Caryll buys what is no doubt salad oil, as indeed it is said to be in the following year. In 1638 D'Ewes buys a small cask of what he calls excellent salad oil at 5*s.* a gallon. In 1677 and onwards it is frequently purchased by New College and at advancing prices, being twice described as Florence. The rise is very considerable. Taking an average of twenty-four entries of what is undoubtedly olive oil, the price is a little over 8*s.* 4*d.* the gallon. But the first seven entries, between 1595 and 1638, are at an average of 5*s.* 8*d.* I have not noted it again till 1677, when it is found at 8*s.*, and rises from this price.

CHAPTER XXV.

ON THE COST OF CARRIAGE.

In my earlier volumes, information as to the cost of carriage over distances which could be ascertained from a map on which complete reliance could be placed, was abundant. Though there were very few places which gave me continuous information, yet very many of these accounts, so fully and accurately was the audit rendered, included the cost of transporting goods from place to place. In the present volume, a few localities supply continuous information. But the habits of life are a good deal altered. Towns have grown, and local traders have begun to supply goods on the spot[1]. The custom of keeping careful and accurate accounts becomes less common, and expenses are grouped in such a manner as defies all possibility of analysis. Enough however is still discoverable from which to infer as to the charge which carriage added to goods, and by implication what were the conveniences for transmitting goods over considerable distances. In many cases too, householders frequented the great fairs, and bargained for the conveyance of their purchases. It is plain also that common carriers either plied their calling between distant places, or that there was a recognised machinery, by which it was safe to transfer, from one carrier to another, goods for delivery. For example, Shuttleworth buys hops and fish at Stourbridge fair, and gets them sent

[1] Numbers of the Oxford tradesmen are named in the college accounts as having trade transactions with these corporations.

thence as far as Bolton in Lancashire. He gets goods sent from London to Smithills and Gawthorp, his two country houses, from London to Halifax, and from Stourbridge fair to Preston. Similarly Lord Pembroke at Worksop has goods sent from London to Huddersfield, from London to Worksop, and from London to Chesterfield. There is indeed information which proves that, in very early times, common carriers plied between very distant places.

There is no reason to believe that, except near London, any attempt was made to construct new roads. On the contrary, it is probable, almost certain, that the roads in use had been traversed from very remote times, and that quite as many miles of old roads have been enclosed, as miles of new roads have been constructed. A careful examination of private Acts of Parliament would perhaps supply any student with exact information as to the mileage of new roads laid out and made since the legislature began to pass private Acts for turnpike purposes. And I imagine that such a search would result in proving that a very small percentage of existing highways in the country districts has been added to those ancient roads, the maintenance and repair of which was a duty very properly imposed on the landowner, because without such roads his property would be inaccessible and its products unsaleable. I have indeed little doubt that after the dissolution of the monasteries, and the acquisition of their lands by grantees of the Crown, many highways gradually fell out of repair, for motives which induce the keeping of roads in order are as necessary as the machinery for enforcing the repair is. But of all the liabilities which ought to fall on landowners, none is more obviously just than the maintenance of the highways, as long at least as land yields a rent, for no one gets so much benefit from good roads as the owner of cultivated land does. Even if one considers the use which common carriers made of them, it seems that persons who lived in country places, and had to go to fairs, large towns, and markets for everything beyond

what the neighbourhood produced, would have found it to their account, in the cost of conveyance, that the highways should be kept in repair, even at their own expense.

The cost of carriage which is illustrated in the sixth volume, p. 651, is that by land and that by water, of articles in the conveyance of which no particular care need be taken, of articles which might take damage, of articles which required great care in transmission, and of money, in which we may conclude that the carrier was paid principally as a bailee. The transit by water always involves some transit by land, even when the vendor covenanted to ship the goods at the place of departure, and sometimes it is stated that the conveyance was partly by land, and partly by water. Again, it is plain that there were regular carriers by water on a river like the Thames, at first as far as Burcot pier, and afterwards further up the stream to Oxford, from which city, in very early times, the river was navigable at least as far as Lechlade. It appears too that coal barges regularly plied between King's Lynn and Cambridge. The price of this service is not however given, for it is clear that the Cambridge Colleges often buy of the local dealer, who includes the cost of transit in his price. Sometimes even the cost of cartage into the College coal-cellar is included in the price recorded.

The mode of conveyance on the Thames is illustrated by the Eton account of 1635. The College had bought its usual stock of cloth for the scholars and the servants, in London, and the bursar of the College states that it 'came by wherry, because it could not come, as usual, by barge, and that therefore it cost 10*s*.' Now I conclude that the quantity of cloth purchased amounted to about 2½ cwt. in weight, and in 1630 Eton paid at the rate of 1*s*. per cwt. for hops from London, though I will not assert that this particular package came by water. But I should think that the carriage of hops by water required as much care as the carriage of cloth, and that therefore both kinds of goods would be conveyed at the same

price. If so, the accident which disabled Eton from using its customary mode of conveyance quadrupled the price.

Sometimes the cost of carriage was the expression of a permanent contract. Thus in 1650, and onwards to 1684, New College bargained with two of its Buckinghamshire tenants that they should deliver at the New College stables annually, each of them, four quarters of beans, at the market price, the College allowing the tenant of each estate 4*s.* a quarter for carriage, and deducting the sum from the fixed rent payable to the corporation.

Sometimes the conveyance was partly by land and partly by water. In 1681, S. John's College, Cambridge, bought five loads of slate at Collyweston quarries, in Northamptonshire. This place is not far from Ketton, from which stone was brought to London for building purposes. Now the S. John's account states that the slates came to them by land and water. The slate must have been of exceptional quality, for it cost the College, including the carriage, 28*s.* a load.

The navigation of the Thames had been improved, or barges could be built which could get over the shallows as time went on. In the fourteenth century Henley appears to have been the furthest point to which it was ordinarily navigable, and apparently from an entry in vol. iii. p. 672, this was the limit as late as 1541. But in course of time the bargemen got as far as Burcot, a hamlet on the Thames about a mile and a-half from Dorchester. The owner of Burcot constructed a pier, from the bank over the stream, and probably to an eyot in the middle of the river, which is here deep. Thence freight was hauled through the grounds near the house to the Abingdon road, from which a short cut was constructed to the main Oxford road through Henley to London, this main road being a very ancient one, as it is visible in Gough's fourteenth-century map of English roads.

I visited Burcot some weeks ago (1887), and could easily discover where the pier must have been placed, from the ruts, four

or five in number, cut deeply through the ground between the water and the high road, and all converging to a point on the river. The depth to which these ruts were cut into the soil was clear evidence of the great amount of traffic which must have been carried on from this farthest point of Thames navigation to and from Oxford and the district about, especially as there is good reason to believe that the period between the extension of the water-way from Henley to Burcot with the establishment of a pier at the latter spot, and the subsequent extension from Burcot to Oxford, was not longer than seventy or eighty years. No doubt there was a great traffic in heavy goods, wood and stone from the Oxfordshire forests and quarries, the principal articles conveyed up stream being lighter and more manageable. But the present appearance of these deeply cut ways proves beyond question that, during the time that the pier and cross-road were in use, no part of the river was more busy than Burcot pier.

The first entry in which this place, once so important, is mentioned is in 1588, when Magdalen College has a hundred of salt fish landed there. The next is in 1596, of a hundred and a-half. In 1599 the same College has a considerable quantity of wainscot conveyed from London thither. In 1602, 1604 and 1607, fish is conveyed to this pier; in 1604 timber also; and in 1608 a very large quantity of timber comes from Reading. It seems to me, from the price charged for conveying the salt fish and wainscot, that the owner of the pier exacted progressively heavy dues for the use of his wharf, and that these dues, light at first, were considerably reduced when the Government began to pass Acts for extending the navigation. It is also possible that even when the new course was opened, and there are extensive cuttings made in the river-bed beyond Burcot, persons with light goods preferred to still use Burcot pier, which is only eight and a-half miles from Oxford, to the circuitous course by the Thames, which was fifteen and a-half, with porterage or cartage from the wharf.

I could not, when I examined this spot, but picture to

myself, in contrast with the sleepy quiet which now reigns over the deserted landing-place and forgotten pier, what a scene of activity Burcot must have been when it was the head of the Thames navigation, and was thronged all the year through with river traffic; how it swarmed with bargemen and carriers, how the heavily laden waggons were dragged up those roads or carried their freight down to the water's edge, and how the numerous barges, ready to unship or receive their cargoes, were waiting at the pier. In the days of its prosperity it must have been one of the busiest spots in England, and possibly a considerable amount of the goods which were sent from London to the Midland towns used this place as the beginning of the land carriage, even for the purchases of such a personage as Lord Spencer, in Warwickshire. At present, all that remains to testify to its former activity and importance are the deeply sunk roads over which the traffic passed, for all knowledge of its ever having been a place of great significance in the internal trade of England has entirely passed away from local memory, as have also, when I enquired about them on the spot, all recollections of the great fairs of Stourbridge and Winchester.

The Act of James I recognises the existence of a navigable water-way from Oxford to Lechlade. The highest point on the Thames which my accounts refer to is Radcot bridge, from which point, on two occasions, a better quality of stone than the local quarries afford is brought to Oxford. It is I infer quite certain, though I have no evidence of the practice, that the river was greatly employed for the carriage of corn all along the valley of the Thames to London. This valley is broad, fertile, and ripens its crops at an earlier date than land which lies on the same parallel[1],—no small matter in England,—and its produce could therefore be sent to market not only at a cheap rate, but before other parts of the general harvest were ready. Now in going through Houghton's corn prices,

[1] There is, I think, no country in which a few miles north make so much difference in the time of harvest as they do in England.

I noticed how wheat and other kinds of grain were cheaper in London than in its vicinity, and on viewing the ground near Burcot pier, I felt sure that not only wood and stone but agricultural produce was abundantly sent down this water-way.

Though it is probable that the roads in England were not kept in such good repair as the evidence given by the cost of carriage suggests to have been the case in earlier times, I do not find such complaints as to the badness of their condition in the seventeenth century as I do in the eighteenth, when statute labour was first formally enacted by Parliament and in part superseded by the Turnpike Act of 1773. In the first place, it was in the power of the higher authorities to fine those responsible for keeping the roads in repair, and I remember having put an end to a lawsuit by showing one of the litigants, the University of Oxford, which claimed that a particular road was their own private way, that the officials of the parish in which this road was situated were fined by the judges in Charles the Second's reign for allowing this very road to get out of repair, the remission of the fine, on the submission of the churchwardens, being recorded in the parish archives. Even in my accounts there are some notes of expenditure on the repair of roads[1], and I think it far from improbable that the customary obligation, as a common law responsibility, of repairing roads, was found to be effectual in keeping highways in tolerable condition.

LAND CARRIAGE. The cost of carriage is conveniently illustrated by taking two points and examining the charge at which the service of conveying heavy articles between them is satisfied. Such an illustration is afforded by the payments made for carrying firewood between Oriel College, Oxford, and a wood called Stowford, about four miles' distance from the place of destination.

Oriel College, like many other of the Oxford Colleges, was possessed of a wood in the neighbourhood of the city, from

[1] For example, New College undertook half the cost of paving New College Lane, Queen's College the other half.

which the society supplied itself with firing. The College hired its own woodmen and faggot-makers, and these persons probably helped the carter in piling the fire-wood on the waggon. When the waggon reached the College yard, other persons were hired to unload and stack it for use. No intimation is given as to the time at which this service was generally performed, but we may conclude that the trees and coppices were generally cut in the winter, and that the carriage of the faggots and lop was effected in the spring, when the demand for the services of man and horse was least urgent.

Now my notes on the cost of carriage supply me with a record of the cost incurred for carrying a load of firewood and occasionally of timber from Stowford to Oriel College, in thirty-seven[1] years between 1583, the first year of the present period, and 1644, after which year the treasurer of Oriel College ceases to make entries of this charge. It should be said that on the last occasion Oxford was invested by the Parliamentary forces, and as we know that the particular road on which the wood could be carried was blockaded, and no entrance into the city could have been effected except with the consent of the besieging forces, the price paid for the service is probably anomalous, and cannot be fairly contrasted with earlier charges.

The road which led to Stowford was over the Cherwell by Magdalen College, not by the present bridge, which was built at a far later period than that before me, but by another bridge, a hundred yards further down the river, and at a place where, in dealing with the stream a few years ago, the stone foundations of the old bridge were discovered and exposed. Then the carter had a choice of roads. He would either go through Cowley, up to Bullingdon, and across the common by the quarries to Stowford, or by the old road to Shotover hill, turning to the left at the foot of the hill to the same point, for that portion of the road which is at present the highway was

[1] I have only taken the years which have been printed, but the reader will see in vol. vi. p. 655 that the rate was uniform for several years.

not made till the middle of the eighteenth century at earliest. I have therefore I think stated the distance moderately at four miles, and there is reason to believe that only one of these journeys could be performed in a day, taking into account the time employed in loading and unloading the waggon. The load too, as usual by land carriage, was a ton.

Now the cost of transport will be best explained by taking decennial averages through the whole time for which the record of payment is made:—

1583–1592 ...	1*s.* 9*d.*	1613–1622 ...	2*s.* 9¾*d.*
1593–1602 ...	1*s.* 8¼*d.*	1623–1632 ...	2*s.* 11¼*d.*
1603–1612 ...	2*s.* 0*d.*	1633–1635 ...	2*s.* 8¾*d.*

1644 ... 5*s.*

It will be obvious from the above figures that the hire of a two-horse cart or waggon for the carriage of firewood, whether it be interpreted as a short day, or as a journey which might be repeated perhaps in the day, rose sensibly after 1613 and up to the time that the nearly continuous record closes, from an average of 1*s.* 9¼*d.* to one of 2*s.* 10*d.*, or of sixty per cent. The reader will perhaps infer with me that the last entry at 5*s.* is exceptional, and should be explained in the light of the fact to which I have referred, that from September 1644 to September 1645 Oxford was besieged. In the first thirty years then, the cost of conveying a ton of firewood, including the out-journey, was a fraction over 5¼*d.* a mile, and during the next thirty years was 8¼*d.* The fact that these charges for conveyance were the result of a bargain, and not a customary charge, is, apart from the rise, proved I think by the fact, that the price of the service in 1613 and 1615 is an average from three different rates in the first case, two in the second. In further illustration of my inference, it will be seen that, in 1610, a man and a four-horse waggon were hired for two days at Oxford at 3*s.* 4*d.* a day. In the journeys to Stowford then, charged at 2*s.* a load, there were two horses employed, and there was only a short day's work.

Oriel College had another piece of ground, the site of the

ancient hospital of S. Bartholomew, at the entrance of Cowley Marsh, once inhabited it seems by the bedesmen, who, in addition to the advantage of their tenement and curtilage with its chapel, were maintained from the produce of the fee farm rent of Oxford town. When Oriel College was founded, the charity was annexed to the College as a country residence for the foundation, and was so used by them in time of plague, the College receiving the fee farm rent, and engaging to pay the bedesmen's allowances from it. There is a record of a few charges for journeys to this place, about two miles from Oriel College and on a level road, though one I suspect which was very heavy in the spring. The average cost of the first five of these hirings, all in the earlier half, is 1*s.* 7*d.*; in the second of them it is 2*s.* 6¾*d.*, a proportion which does not much differ from that of the other record. I have taken the wood carriages only in these calculations. I may add that, in 1614, Oriel College conveys six cart-loads of lead to S. Bartholomew's, at 1*s.* 6*d.* a cart, in order to roof the chapel,—which is now turned into a barn,—and that the cost of conveying timber is higher than that of carrying firewood. Thus, for instance, in 1632 the College pays 2*s.* 10*d.* a journey for firewood from Stowford, 3*s.* 4*d.* for timber. In 1637 Corpus Christi College pays 3*s.* 6*d.* for firewood, from another place, nearly as far off, 4*s.* 9*d.* for timber. The difference is most likely to be accounted for by the greater labour required to load timber.

Similar evidence is procurable from the hirings of other Oxford corporations. Thus in the earlier period Magdalen College hires carts to carry firewood from Shotover at 1*s.* 2½*d.* the load. At the end of the sixteenth century the forest of Shotover was very extensive, and no doubt came down to the foot of the hill, or even nearer to Oxford. If so, its distance from Magdalen College was from 2½ miles to 3 miles. Corpus Christi College carried firewood from Horsepath, a place nearly as distant as Stowford. In 1592 it gets the service done at 1*s.* 6*d.* a load; in 1637 and 1641 at 3*s.* 6*d.*; in 1643 at 4*s.*; in 1644 at 5*s.* But the military operations about

Oxford must have greatly hindered communications from the neighbouring villages.

In 1595, carriage from Headington is 1*s.* a load; in 1612, 1*s.* 4*d.*; in 1646, 3*s.*, the same price being paid from Littlemore. The two villages are about equidistant from Oxford. But in 1600 the cost from Wheatley, five miles off and over a heavy road, is 2*s.* 6*d.*; and in 1622 from Stanton S. John, six miles off, 3*s.* 1*d.* I shall return hereafter to other carriages from or to Oxford.

In 1585 King's College, Cambridge, pays 2*s.* a load for wood carriage from Madingley. Now, by the Ordnance map, Madingley is four miles from the centre of Cambridge, and the rate is about the same as that paid by Oriel College from Stowford. In 1594 the same corporation gives 2*s.* 4*d.* a load for the carriage of hay from Denny to the College. Denny is 6¾ miles from Cambridge, and the rate is therefore as nearly as possible 4*d.* per ton. In 1621 it pays 3*s.* a load for carrying hay from Kingston to the College, apparently ten miles off. This is at nearly the same rate, but rather cheaper. In 1667 hay from Grantchester is carted at 2*s.* 8*d.* a load. Now Grantchester is about 2½ miles from Cambridge, if I can trust my measurements on the Ordnance map, and the cost is therefore trebled. In the year before, Magdalen College carried wood from Tubney, six miles distant, at the rate of 1*s.* a mile, and Eton, from Slough, got bricks carried at the same cost. This price appears to have now become nearly regular. In 1665 the cost of carrying wheat between Eton and Taplow, and Eton and Colebrook, both five miles distant, is effected at the cost of 1*s.* a quarter for the journey, or 1*s.* a ton, taking wheat at 56 lbs. to the bushel and at five quarters[1] to the ton or load. The cost of carrying wheat between Eton and Colebrook is the same in 1689. In 1696 oats are carried to Winchester from Medstead, the distance

[1] Of what integer is wheat the quarter? I suppose of the old ton of twenty 'Saxon' hundreds each of 100 lbs., and each lb. of 5400 grains, the bushel weighing about 62 of these pounds.

being said to be twelve miles, at nearly the same rate; and wheat from Hedley to Farnham, Survey, eight and a-half miles, in 1701, at a little less than 10*d.* a ton.

In 1629 Eton gets timber carried from a place called Wood Mansetts at 6*s.* 8*d.* the load. I have been unable to discover this place in the inch Ordnance scale, but I conclude that it is ten or twelve miles off by land, and four more if the carriage is by water. In 1646 it pays the same price for bringing timber from Cookham, which is ten miles distant; and in 1647, 6*s.* 6*d.* for the same service from Bray, six miles off.

Winchester College, whose accounts do not begin till after the rise in these prices, gets its timber from Allington, a place which, according to the Ordnance survey, is eight miles distant from the College[1]. In 1650 and 1655 it pays 5*s.* 6*d.* a ton for the carriage, 8¼*d.* per ton per mile. In 1661 it pays 7*s.* 6*d.*, or 11¼*d.*; in 1664, 7*s.* 3½*d.*, or nearly 11*d.* In 1668, 1669 and 1671, it gets the service performed at 6*s.* 8*d.*, or at 10*d.* the ton per mile. In 1686 Eton pays a shilling a mile for carrying bricks from Slough.

I now revert to certain Oxford prices. In 1588 Magdalen College pays 7*s.* for the carriage by water of 100 salsamenta (the name this corporation gives its saltfish) from London to Burcot. The fish (vol. vi. p. 393) cost £7 10*s.*, and probably weighed close upon half a ton. If this were the case, the price of the land carriage, 2*s.*, was about 5½*d.* a ton. But Magdalen College never gets them conveyed at this rate again. In 1595 it pays 10*s.* for 142 fish from London, but this I am convinced is to Burcot only, and the subsequent charge by land is either dropped, or contained in some other item. In the next year, 1596, the College buys a hundred and a-half of salsamenta at a cost of £10, i.e. £6 13*s.* 4*d.* a hundred, and pays 6*s.* 8*d.* for the land carriage, or about 4*s.* 5*d.* the hundred, more than double the previous price. In 1602 the College gives 6*s.* 8*d.*

[1] In 1645 Winchester College pays 3*l.* 12*s.* for shaping and carrying 12 tons of timber. Now they paid 1*s.* a ton for shaping. Probably the timber came from Allington, and the carriage was paid for at 5*s.* the ton.

for the carriage by land of 104 pairs, for which it paid £14 5*s*. The land carriage is now 6*s*. 8*d*. for the parcel, or about 3*s*. 3*d*. for the short hundred. In 1603 the purchase is of the same quantity apparently, though the account does not say that there were 104 pairs. It gives nearly the price though, i.e. £14 6*s*. 8*d*., and I have no doubt that it was the same quantity as in the year before, though the price of fish this year is certainly high. On this occasion the carriage by land is 7*s*. 8*d*. In 1604, 100 are bought at £14 6*s*. 8*d*., and the land carriage is 7*s*. In 1607, 130 are bought for £18 5*s*., and the land carriage is 4*s*. 6*d*. These prices, if there was any uniformity in the weight of the quantities, seem to indicate a carrier's charges and a bargain with the carrier at Burcot on each occasion.

This inference is I think supported by the cost which this College was put to in another transaction over the same ground. In 1599 Magdalen College bought 225 wainscots, of three different sizes and prices (which it paid for in 1600), in London, at an aggregate price of £26 15*s*. 8*d*. It had them conveyed from London to Burcot, and thence to Oxford in fourteen loads at 4*s*. the load. Taking the load at a ton, the land carriage then was a fraction under 6*d*. a ton per mile. But on no conceivable interpretation could the fish have been carried at this rate.

Occasionally the Oxford Colleges procured slate from Guiting in Gloucestershire. The distance appears to be nearly forty miles. In 1588, 1590, 1591, 1594, 1597 and 1599, the cost of the carriage is 5*s*. the load. In 1601 it is 5*s*. 5*d*. These are the only entries which I have found. I conclude that the growing cost of carriage discouraged the use of this distant material, and finally brought about its discontinuance in Oxford. The purchases are always made by Corpus Christi, to which College Guiting belonged.

In 1627 and 1630 New College buys slate and hewn eves, and undertakes their carriage from Shipton, this being I conclude Shipton-on-Cherwell, almost seven miles due north of Oxford. It pays 3*s*. 4*d*. a load, each being said to be of six

hundred slates, and one containing 118 hewn eves. The carriage therefore, the load and the ton being taken as identical, is again a little under *6d.* per ton per mile.

The hire of teams is occasionally given, with of course their attendants. At Chester, in 1635, the price is *4s.* a day. In 1646, at Eton, it appears to be *10s.*; in 1700 it is at *7s.* A waggon without horses is hired by Winchester College in 1645 at *1s.* a day.

There remain several instances of land carriage, probably when the distance is above a day's journey, undertaken by the common carrier or waggoner, and charged for according to the character of the goods, since an article which was unlikely to be injured or lost involved less risk to the carrier, and therefore less charge to the sender.

In 1583, half a ton of iron in bars and two hogsheads of wine are sent from Chester to Smithills, the seat of Judge Shuttleworth. Now in a straight line Chester is thirty-seven miles distant from the place to which the goods were sent, and it is reasonable to conclude that the actual distance traversed by the carrier who conveyed these goods was fifty miles at least. Shuttleworth pays *12s.* for the carriage. Now the traditional capacity of the hogshead is 46 gallons, and the weight of the two hogsheads, casks included, must have been from 8 to 9 cwt., and the whole consignment must have amounted to at least 18½ cwt., part of the freight being bulky, inconvenient, liable to breakage, and to theft. Taking the amount at 18 cwt., and the distance by road 50 miles, the articles were carried at *8d.* the cwt. for the whole fifty miles, or *13s. 4d.* the ton, or a little over *3d.* per ton per mile.

In 1588 the owner of Smithills has goods sent from a far greater distance. He has 10½ cwt. forwarded to him from London at *5s. 6d.* the cwt. Now Smithills is about three miles from Bolton in Lancashire, and Bolton is by high road 197 miles from London. The carriage is undertaken in August, and at £5 *10s.* a ton. The cost is a little over 6½*d.* per ton per mile.

I cannot but conclude that the conveyance of these goods was the office of the common carrier.

The year before, Lord North, who had made great preparations for doing his part as an Englishman during the time of the threatened invasion, of the Armada, had goods, 27 cwt. in weight, sent down to him from London. Now Kirtling is in Cambridgeshire, near Newmarket, and fully sixty miles from London, even by modern roads. Lord North pays at the rate of £3 a cwt. for the articles sent him. The charge to him then is at the rate of 1*s.* a ton per mile. Of course it is possible that, the occasion being urgent, Lord North was willing to pay an extra price for speedy delivery, especially as the weight of his purchases was in excess of an ordinary load.

In 1588 Lord Pembroke gets a parcel, weighing 28 lbs., sent from London to Huddersfield. The distance is 188 miles, and the price paid for carriage is 4*s.* 8*d.* Now this is at the rate of 18*s.* 8*d.* the cwt., or £18 13*s.* 4*d.* the ton. Had a ton of goods been dispatched at this rate, the charge would have been nearly 2*s.* a mile. But a small parcel would of course be charged at a heavier rate than a large consignment of goods.

In 1591 Shuttleworth buys 118 lbs. of hops and six couple of ling at Stourbridge fair, and has them sent to Bolton. It is reasonable to infer that the two purchases together weighed 1½ cwt. They are forwarded to him in September. If I am right in my estimate of the weight which should be assigned to the fish, he gets them conveyed at 5*s.* a cwt.; and taking the distance at some twenty miles shorter than that from London, he pays the same rate that he did in 1588.

In 1592, in May, he has a ton of iron sent him from Liverpool, and pays 10*s.* 4*d.* for the conveyance. Now it is about the same distance from Liverpool to Smithills that it is from Chester. But we may conclude that iron in bars was sent at a cheaper rate than wine would be. If we take the distance to be fifty miles, the cost of carrying the iron is at 2½*d.* the ton per mile.

In 1596, five stone weight of wine is carried from London to Worksop at the cost of 6*s.* 6*d.* Worksop is 146 miles from London. The seventy pounds weight are carried at about 1⅛*d.* per pound, or 10*s.* 6*d.* the cwt., or about 1*s.* 5*d.* per ton per mile. Here again the parcel is comparatively small, and the responsibility of the carrier considerable. In 1597 Eton College has goods sent from London at 2*s.* the cwt. The rate is very high, nearly 2*s.* per ton per mile.

In 1600 Lord Pembroke buys a rundlet of sack, which is said to weigh 81 lbs., and has it sent to Chesterfield. Chesterfield is 150 miles from London, and Lord Pembroke pays 1*d.* the pound for the conveyance of his wine, or at the rate of a little over 11¼*d.* per ton per mile.

In the same year Lord Spencer has 4 cwt. of goods sent down from London to Wormleighton. Now Wormleighton is seventy-six miles from London, and Lord Spencer pays at the rate of 4*s.* 8*d.* a cwt. for the carriage. The account does not state what the goods were, but it appears that they were dispatched in December, and were probably Christmas stores. The rate is 93*s.* 4*d.* a ton, or nearly 1*s.* 2¾*d.* per ton per mile.

In the year 1602 the same person has 9 cwt. sent from London. He now pays only 3*s.* 4*d.* per cwt., or about 10½*d.* per ton per mile. But in the same year he has, in May, 2 cwt. 24 lbs. of sugar sent him at 4*s.* 5*d.* the cwt., or at nearly 1*s.* 2*d.* per ton per mile.

In 1603 Corpus Christi College sends three loads of timber to Burcot to be transmitted down the Thames. The cost by the load is 4*s.* 6*d.*, and taking the load as the ton, the carriage is paid for at 6*d.* per ton per mile.

In 1605 Cambridge has 20 cwt. conveyed from London, at 2*s.* 6*d.* Now Cambridge by the modern road is fifty miles from London, and at this distance the College pays at the rate of 1*s.* per ton per mile.

In 1607 Shuttleworth, now at Gawthorp, has 8 cwt. of goods sent him. Gawthorp must be at least 230 miles from London by the old roads, for in a straight line it is nearly eighteen

miles from Bolton. In this case Shuttleworth pays ½*d.* a mile, or 4*s.* 8*d.* a cwt., and he actually gets his goods at a cheaper rate than his brother did in 1588 for a shorter distance, for the cost is at the rate of £4 13*s.* 4*d.* a ton, or not quite 5*d.* per ton per mile. But he pays the same rate from Whichford in Warwickshire, a place at least seventy miles nearer him.

It costs 4*s.* 8*d.* a cwt. to send goods from London to Banbury in 1608. Now Banbury is sixty-nine miles by road from London, and the cost is therefore 1*s.* 4¼*d.* per ton per mile. In the same year nearly four cwt. of ling is sent to Oxford, and I have no doubt by road. The rate is 3*s.* 2*d.* the cwt. Now Oxford is fifty-six miles by the old road to London, and the rate is now a little over 1*s.* 1½*d.* per ton per mile.

In 1611, goods amounting to 168 lbs. are sent from London to Halifax at 2*d.* a pound. They consist of a box, a cask of wine, and a hamper. The distance is 197 miles, and the rate is 1*s.* 10¾*d.* per ton per mile.

In 1614, 3½ cwt. 14 lbs. of fish are sent from London to All Souls College. The rate is now 3*s.* 4*d.* a cwt. This, at fifty-six miles from London, is a fraction over 1*s.* 2¼*d.* per ton per mile.

Again, in 1617, 3½ cwt. are despatched from London to Halifax, at 6*s.* 6½*d.* the cwt. The distance, as we have seen, is 197 miles, and the rate per ton per mile is almost exactly 8*d.* a mile.

In 1621, a parcel of hops, 1 cwt. 44 lbs. in weight, and a couple of ling, are sent from Stourbridge to Preston. The distance is at least 200 miles, and the cost is 15*s.* Now taking the couple of ling as 12 lbs. in weight, the total will be 1½ cwt., and the rate 10*s.* a cwt. His goods now cost Shuttleworth for carriage 1*s.* per ton per mile. In the same year, we are told, it cost 4*s.* a cwt. for carriage from London to Wormleighton. Lord Spencer is now paying at about the rate of 1*s.* 0½*d.* In 1631 he pays the same rate, his parcels, described as cloth, &c., coming to nearly 30½ cwt.

In 1639 New College has three fothers of pig-lead sent from London at 24*s.* the fother. This rate, a little over 5*d.* per ton per mile, is too low for land carriage, and it appears plain to me, though no information is given me, that it came by barge.

In 1657, 22¾ cwt. 14 lbs. of lead cost 60*s.* 8*d.* to send from London to Winchester. The rate is 2*s.* 7¾*d.* But it is sent partly by water, partly by land, and no doubt the water carriage was to Southampton.

In 1663, New College sends 136 lbs. weight of goods to Winchester at 1*d.* the pound, and 24 lbs. at 2*d.* It is about seventy miles from Oxford to Winchester: 1*d.* the pound is of course 9*s.* 4*d.* the cwt.; 2*d.* a pound, 18*s.* 8*d.* These goods must have required extraordinary care, and the carrier probably demanded high rates for them, because he incurred considerable risk in conveying them. At the first of these prices and at a distance of seventy miles the rate of the first is 2*s.* 8*d.* per ton per mile; of the second, 5*s.* 4*d.*

The last of the entries which I have been able to make of goods presumably conveyed by the common carrier is of the hydraulic lime purchased in 1693 in London, for the foundations of the third quadrangle at S. John's College, Cambridge, and forwarded to Cambridge from Bishopsgate. The whole forty bushels were packed in ten sacks, and sent to Cambridge at a cost of 64*s.* 8*d.* Now if we take 75 lbs. to the bushel, the weight of the whole must have been 3000 lbs.,[1] or a little over 26¾ cwt. On this assumption the cost of carrying this amount for fifty miles is almost exactly 1*s.* per ton per mile.

There are still a few articles carried by land, which are either not reducible to weight at all, or else of so awkward a shape as to be inconvenient for packing, or so small in bulk that it could not be expected that the carrier would convey

[1] This by the way, as I learn from Cromwell's book of excise rates, is also the weight of a 'mount' of Plaster of Paris, a quantity for which I had searched in vain to find a key.

them at the rates at which he would engage to carry large quantities over considerable distances, or so valuable that the cost of carriage must be greatly increased by the implied insurance which the law gave the consignor or consignee against the carrier.

Such for instance is the cost of a saddle and furniture from London in 1585. The two together did not probably weigh much more than 14 lbs., and the charge is 2*s.* 6*d.* Again, in 1587, a communion table and carpet are sent from London, and 7*s.* 3*d.* charged for carriage. Here again it is plain that the carrier's charge implied something more than weight. Again, a parcel 28 lbs. in weight is sent on Lord Pembroke's behalf from London to Huddersfield in 1588, and 4*s.* 8*d.* charged for it, that is 2*d.* per pound. In 1591 five saddles are sent from London to Oxford, and 5*s.* is charged for the parcel, a sum far in excess of the amount paid for goods in bulk. On the other hand, two sugar-loaves, sent from London to Cambridge at 6*d.* each in 1616, are probably not charged at a very exceptional rate, the weight not being given, but the loaf being generally between ten and eleven pounds. So the charge for conveying the materials for a communion cloth, which cost £60 in 1632, is 12*s.* 10*d.*

In 1631, twenty-four pounds of wax candles are sent from London, and carriage of 1*d.* a pound charged on them. The rate is far in excess of the customary charge of London carriage, being at the rate of 9*s.* 4*d.* a cwt.

In 1649, fourteen chairs and six stools, for such I suppose are the sedilia of the accounts, cost in all 22*s.* 2*d.* to send from London to Winchester College. I have no means of guessing what the weight of this furniture was, but on no interpretation would it give such an amount as would make the charge of carriage correspond to the ordinary rate demanded for heavy goods at this time, about 1*s.* per ton per mile.

Among the items which occasionally appear in the accounts is the cost incurred for transmitting money, I conclude through the common carrier, the entry sometimes expressly stating

that it was his business. The entries do not occur till late. In 1663, Eton College pays 6*s.* for the carriage of £100, and in 1670, 10*s.* In 1674, £50 are sent from London to Cambridge, and a charge of 2*s.* 6*d.* made for its transmission. In 1676, Eton College pays 12*s.* for the carriage of £150, and 10*s.* for that of £120, or about 1*d.* in the £. In 1695, £130 are sent to Cambridge by the carrier, who is paid 6*s.* 8*d.* for his trouble; and in 1696, £375 is sent from Sarum to Blandford, at the rate of 10*s.* per cent.

WATER CARRIAGE. The greater part of the goods purchased in London by Eton College was conveyed to the College by water. The rate was low, especially in places where the navigation of the Thames was not liable to interruption, and the city authorities were vigilant in vindicating the highway of the Thames as a public right, and could repress those encroachments and exactions which are complained of and chastised by 6 & 7 William and Mary, cap. 16. This statute asserts that the whole length of the Thames from London to beyond Lechlade is a public highway, and creates authorities who can punish encroachment and interference with the public use of the river.

The first entry which my reader will find of water carriage is in 1586, when Eton College pays 10*d.* for the carriage of three cwt. of hops from London to Windsor by water. As I have already stated, the goods were conveyed by barges, and propelled by punt poles, or by sculling at the stern. In 1588 Magdalen College had 100 salsamenta from London to Burcot for 7*s.*

The next entry is on another river. In 1589 Lord North has two tuns of wine conveyed to him at 2*s.* 6*d.* the tun. A tun of wine, 252 gallons, must have weighed, with the cask, considerably above a ton avoirdupois; and these tuns were no doubt brought from King's Lynn, the Lynn of the merchants in medieval language. But it is by no means easy to say at what point of the Ouse Lord North sent his waggons to carry home his purchase to Kirtling, which lies south-east of

Newmarket, and apparently ten or a dozen miles distant from any navigable stream.

Windsor, according to the accurate and careful map of the river Thames by Mr. Taunt of Oxford, is 43 miles and 130 yards from London Bridge. Burcot is nearly 96½ miles, and Oxford 111 miles 5 furlongs 66 yards. From Lechlade to Oxford is 32½ miles, and from Radcot Bridge to Oxford 26½ miles. From Oxford to Windsor is 68½ miles.

The next important entry is the carriage of the wainscots from London to Burcot in 1599. They are fourteen tons in weight, for they make fourteen loads from Burcot to Oxford. The cost to Burcot is £6 2*s*., or a little over 8*s*. 8½*d*. the ton. The water carriage then of heavy goods is effected on the Thames at a fraction over 1*d*. per ton per mile.

In 1608, 28½ loads of timber are sent from Reading to Burcot. The charge by the load is 6*s*. 2*d*., and the distance from Burcot to Reading by water is 22½ miles. The rate per mile per load or ton is therefore a little over 3¼*d*.

In 1609, All Souls College procures three tons of stone in or near Radcot, and has it conveyed to Oxford, at 2*s*. 7½*d*. the ton, or less than 1¼*d*. a mile.

In 1630, hops are carried by water to Eton College at 1*s*. the cwt. The rate is rather high, nearly 6*d*. a ton per mile. In 1635, occurs the entry on which I have already commented, the conveyance of about nine bales of cloth by wherry, the barge being missed. Now if these prices of cloth conformed to the Statute of Edward VI (vol. iv. p. 206), and Blackwell hall was maintained in order to secure this result, the whole must have weighed about 720 lbs. By barge the carriage of such a quantity might have been 4*s*.; by wherry it is 10*s*.

In 1639, three fothers of lead are sent from London to Oxford, entirely by water I conclude, or by water to Burcot and thence by land, at 24*s*. the fother the whole way. The rate is about 2*d*. per ton per mile.

In 1661, New College buys stone from the neighbourhood of Radcot bridge, and has four loads conveyed thence by

water to Oxford. The cost, assuming the load and the ton to be identical, as it seems they are from the same quantity being denoted in both land and water carriage, is greatly raised since a similar arrangement was made fifty-two years before, for it now costs nearly 4*d*. per ton per mile to carry it.

In 1665, two small casks of wine, containing together 50 gallons, are sent from London to Eton. They must have weighed at least four cwt. The porterage in London to the boat is 2*s*. 6*d*., the cost by the boat for the two is 4*s*. 4*d*., and there is a further expenditure of 1*s*. 6*d*. for carting them from the College, no doubt by the wharf at Windsor bridge, which seems to have been called Stone's wharf, if indeed this was not one among several. The charge is high.

In contrast to the payment made to bargemen for carrying wine, the next year gives the cost of conveying coals by the chaldron from London to Eton. The chaldron of 36 bushels could hardly have weighed less than two tons, and the rate per chaldron is 4*s*. 6*d*., or, on this estimate, a great deal under a penny per ton per mile.

The last entry which I have found of distinct water carriage is in 1671, when Eton had a hogshead of wine (claret) sent to the College by water from London. The price charged was 7*s*. By tradition the hogshead of claret is 46 gallons, and with the cask, the weight would I conceive be very little or at all under 4 cwt. The rate at which it is carried by water is nearly 10*d*. per ton per mile.

The cost at which coarse goods such as coals were carried by water fully explains the anxiety expressed in the two Acts of James I (3 Jac. I. cap. 20, and 21 Jac. I. cap. 32) for the improvement of the Thames waterway; and I believe that the regular appearance of sea-coal at Oxford illustrates with considerable accuracy the period at which the work completed by the Acts was completed and the land route from Burcot pier was discontinued, or at least that the traffic was diminished.

It is clear that a great difference existed between the cost

at which timber and heavy goods were transported, and those at which coarse or common articles, such as coal, timber, firewood and lime, were carted. The latter function was no doubt performed by the small farmers at a time when their horses and carts or waggons were not required for plough or harvest. Such were the hirings of cart and pair at Oriel College for their firewood in the first half of this period, and at Winchester College for the last half. Even here however the hirer had to pay for occasional scarcity of supply, or for his demand occurring at an inconvenient time. These people received in a distinctly rising market 5*d.* to 5¼*d.* per load per mile at the beginning of the period, and 1*s.* at its close. And we may I think conclude that ordinarily and for such goods as would be entrusted to him for long journeys the common carrier received double the prices which the irregular or occasional use of a farmer's cart and horses was able to demand.

In 1688 S. John's College, Cambridge, hired a lighter for 28 days at 1*s.* a day, and a small boat for 16 days at 6*d.* This is of course without watermen. The object, from the large amount of timber bought this year, appears to have been to carry materials which the College purchased one year after the other for the new quadrangle.

There was of course a drawback to water carriage, except over long distances, in the necessity there was for carting the cargo from the wharf to its place of destination. Thus in 1661, the carriage of stone which had come by water from Radcot Bridge to Oxford, from the old wharf, still known as High Bridge or Hythe Bridge, was 1*s.* 6*d.* a load; and in 1663, the charge which Eton was put to in conveying coals from the wharf to the store-house at the College was nearly half as much as it cost to bring the coals from London. So in 1665, the porterage and cartage charges of the wine which the College bought were nearly as great as the price which was paid for bringing the wine from London.

One of the composite charges has fairly baffled me. In 1681, S. John's College, Cambridge, bought slate at a very

high price at Collyweston in Northamptonshire, and as the bursar's account says transferred it from the quarry to Cambridge by 'land and water.' The nearest water (as far as I can make out the map) to Collyweston is Wansford on the Nen. Thence it must have been taken by barge down the Nen, till it could be transferred to the Ouse and Cam. The distance appears to me to be very great, and the price, 8*s*. a load for carriage, to be very low. Wansford appears to be six miles from Collyweston.

CHAPTER XXVI.

ON PRICES GENERALLY BETWEEN 1583 AND 1702.

AMONG the facts which the examination of prices during this period elicits, the most obvious, and to many readers the most important, is that during the seventeenth century the full effect of the new silver, and to a slight extent of the new gold, which the mines of Spanish America were pouring into Europe, was made manifest. By the middle of the century, general prices attained that level which, except in so far as they are affected by the seasons and by improvements in the production and conveyance of merchantable articles, they retained down to the beginning of the last quarter of the eighteenth century. If any reader cares to compare the prices which will be collected in this chapter, with those which are given so constantly in Arthur Young's Tours, he will find what I have said verified.

It is a commonplace with economists, that the only way in which a country, which does not produce the precious metals or produces them only in small quantities, can supply itself with the material for a metallic currency, is by the foreign exchanges. It must sell or have sold more than it buys in money value, and must receive or have received a balance in coin or bullion. When a nation possesses a foreign trade, either directly or indirectly, with countries which produce gold or silver, the adaptation of the currency in the community to the wants of circulation, and in the end to a general level of

prices between countries which have commercial relations, is effected almost automatically and imperceptibly. I am of course referring here wholly to the metallic currency which circulates among the inhabitants of a country, not to those metallic reserves which are made subject to currency movements, and have occasionally been called international money, or, as Adam Smith calls it, 'the money of the great mercantile republic[1].' This money, which in modern times has become, if I may use the expression, so fluid and mobile that it is affected by impulses, which are often sudden and entirely unforeseen, is distributed by different causes from those which affect the money which is in circulation in any one country.

Now I have stated in volumes which have been already published, that as far as the evidence goes which has come before me, there was no change in real prices, that is the proportion which prices of commodities bore to given weights of coin during the greater part, perhaps during the whole, of the sixteenth century. It is true that, from 1541 onwards, we are met with a marked exaltation in prices; but, as I pointed out before, this rise is almost in exact correspondence with the aggregate debasement of the coin (the crime which Henry VIII and the guardians of his son Edward VI perpetrated) as compared with sterling, and again is in equally close relation with the payment of silver before Elizabeth's reformation by weight, and the payment after that reformation by tale. I am more than ever convinced by fresh evidence, collected after I published my fourth volume, that payments were made by weight up to and during the debasement, and that this is the true explanation of that singular uniformity of prices which characterises the economical history of England between 1259 and 1540. The fact that 5*s.* 10¾*d.* was the average price of wheat for the first 140 years, and 5*s.* 11¾*d.* for the next 140 years (1261–1400; 1401–1540), is to my mind entirely inexplicable on any other hypothesis.

It is difficult, perhaps impossible, to determine whether the

[1] Wealth of Nations, book iv. chap. i.

hindrances which the English Government attempted to put on the exportation of the precious metals were in the least degree effectual as regards European trade. No doubt they were as regards the trade of the East India Company, with which the permission to export bullion was vital to the success of the traffic. But as for currency movements between, for example, Amsterdam and London, it is more than probable that all the Acts of Parliament and all the police of the ports were entirely ineffectual and futile. These regulations had probably only one effect; they appeared to create a difficulty in the punctual payment of bills of exchange, especially in a time when persons were familiar with prodigious fluctuations in the foreign exchanges, fluctuations which modern experts in monetary science find it difficult to understand, or even believe, such for example as I have shown to have occurred in the eight years 1695–1702[1]. But in a time when extraordinary profits were to be made, men were not very much alarmed at paying a price for advances which no sound trader would pay now, and no sensible money-dealer would listen to without well-grounded suspicion.

The circulation of the precious metals then, and their acquisition, as the circumstances of the case required, were not therefore I believe affected by the ingenious expedients by which the English, and indeed other Governments, attempted to secure what has been called the balance of trade and the balance on bargain, though, consciously or unconsciously, these stupid and evident absurdities are even now current. What the English people did in the seventeenth century is what the English people are doing in the nineteenth, striving with varying success to secure and maintain a balance of production over expenditure. The machinery of trade enables a country in which this practice is habitual to draw at its pleasure upon metallic products, or metallic reserves; and when a country like Great Britain is an extensive creditor of other countries, this power is in the fullest efficiency.

[1] The First Nine Years of the Bank of England, p. 165.

The foreign trade of England was trivial and unimportant during the whole of the sixteenth century. I can discover no means by which its domestic stock of currency could be increased. The early struggles of English trading companies were very unsuccessful. The foothold which the English got in Russia was nearly lost after the death of Ivan the Terrible and the subsequent revolution. The Levant Company was in its beginnings a failure, and the first ventures of the East India Company, under Clifford Lord Cumberland, who was himself little other than a buccaneer, were miserably small when compared with the courageous ventures and abundant capital of the Dutch Company.

But early in the seventeenth century, English traders contrived to get a firm hold on their Indian factories. The success of the India Company's trade is demonstrated by the anger and dismay of the Turkey Company. Very soon in the century, and increasingly towards its close, England developed its American plantations, claimed through the Hudson's Bay Company lordship over the vast region north of the great lakes, and became the first colonising country in the world. One of the most significant illustrations of the progress made by the American plantations is the rapidity with which Virginian superseded Spanish tobacco.

Despite the terrible plagues[1] which devastated England during the seventeenth century, and the extreme unhealthiness of towns, especially London, during the whole period before me, the population of England and Wales was I believe doubled in the century. The immigration from Flanders and France of the exiles for religion made a notable addition, the development of domestic industries and the demand for English products stimulated population, while the fuller settlement of the country, especially in the North, was a third

[1] The deaths from plague in London, at its several most severe visitations, are given in the Notes of vol. vi. They were collected from the Bills of Mortality by Captain Graunt, F.R.S., and Corbyn Morris; edition of 1751. I have reprinted the figures.

cause. But I do not find, except fitfully and in a few localities, that agriculture made progress. I cannot indeed quite accept Gregory King's estimate[1], who makes the produce of arable land, one kind of grain with another, not much over eleven bushels to the acre; but I am quite convinced that, generally speaking, agriculture, for reasons which I shall allege in the following chapter, made but little progress. If Gregory King be accurate, the agriculture of the seventeenth was not much more successful than that of the fourteenth century.

Now population will increase if the working classes are deliberately made miserable. This happened in England in the seventeenth and eighteenth centuries, and happened in Ireland up to recent times. Population will increase if there be a demand for labour, especially the labour of the young, even though the means of life are by no means proportionately increased. And if population increases, and the means of life do not increase in a similar ratio, the price of the necessaries of life may be due to other causes than the plenty or scarcity of money, and we may have to seek for other causes of heightened prices than movements of bullion. But I shall revert to this topic below.

Nothing has struck me more in looking over the prices of corn in the seventeenth century, than the prolonged and serious dearths which mark it. I do not pretend that I have discovered, in this record of 444 continuous harvests, anything which can indicate the cycle of the seasons. But I have never noticed in any earlier century such a continuity of dearth, as from 1630 to 1637, from 1646 to 1651, from 1658 to 1661, from 1693 to 1699, in each case inclusive. Continuous periods of famine like these have heightened the average of the century. Gregory King takes the normal price of wheat to be 28*s.* a quarter. My averages prove that for the century it was 41*s.* Now it will be obvious to every one, that if the

[1] Davenant's Works, vol. ii. p. 217. It is noteworthy that King does not mention any root crops whatever.

growth of population outruns the growth of agricultural skill, that which under more satisfactory relations would be stint, becomes under such conditions famine. Some caution must therefore be used in drawing inferences from the price of wheat, for the exaltation may be due to causes other than a fall in the value of money.

The policy of the pensionary parliament, selfish and merciless as it was in its corn law, in its law of parochial settlement, and in its Irish legislation, was not as uniformly effectual as was hoped. With the exception of three years, 1673, 1674 and 1678, prices of wheat were low from 1664 to 1690, possibly because the seasons were propitious, possibly because there was a real improvement in agriculture. The bounty system of the Revolution was in principle quite as indefensible as the corn law of the Restoration; but it tended to defeat its own ends by extending the area of cultivation, and I have little doubt that much of the plenty which characterised the first half of the eighteenth century was due to the bounty on exported corn, and to gambling for the bounty.

I mention these particulars by way of preface to the facts which I am about to lay before my reader, in order to indicate that some judgement is needed in the interpretation of what seems to be the most obvious and conclusive of figures. Whenever prices are high, currency critics are apt to instantly appeal to the fact, as they call it, that the price of gold, or whatever else is in circulation, has fallen; when prices fall, they resort with equal confidence to the allegation that gold has become dear, and rarely take into consideration how actively all the efforts of the money markets are engaged in reducing to the uttermost the specie on which all business is based, of promoting the efficiency of that which they retain, and of keeping up prices. I do not here enter on the question which has been debated with so much warmth and with such confidence at the present time, the causes which have induced the marked prevalence of low prices for the last eight or ten years, but I am persuaded that the cheapness of freight has

had more to do with low prices than anything that gold or silver could do[1].

The increasing use of gold as currency in Western Europe, especially during the last quarter of the seventeenth century[2], disturbed the ratio which the English Government tried to establish between the two metals. The Government intended that the guinea should be accepted for 20*s*. It rapidly rose, quite apart from the recoinage difficulty, to 21*s*. 6*d*. in silver, and towards the end of the century fell to 21*s*., to the loss of those who did not anticipate this result. I remember that Mr. Senior, an acute person in his day, used to insist that the value of the precious metals was determined by their use in the arts. The statement is perfectly accurate if the function performed by the Master of the Mint is to be reckoned an art. And now if, by some act of government, the administration of China should supply the millions of that empire with a silver currency, I venture on predicting that the ratio of gold and silver which prevailed so long would be almost if not entirely recovered.

As regards the average of prices contained in the foregoing pages, I am aware that as regards the price of two kinds of grain, wheat and malt, the figures are those of market maxima, at certain given dates. The fact that wheat and malt prices would be taken at those dates, and would determine a portion of the reserved rents, was as well known to the tenant who had to pay, as it was to the landlord who had to receive, and the knowledge on the part of sellers would not tend to stimulate the market on those days. But I have supplied the corrective to any excessive elevation of prices presumably due to this cause by including in my averages the bakehouse prices of S. John's College, Cambridge, the Eton, Winchester, and New College purchases, and other numerous transactions, on which the recipient corporation, eager for high prices as a

[1] This, I may say, is the view of my friend Mr. David Wells, the wisest and clearest economist of modern times in the United States or elsewhere.

[2] See for the gold coinage of England, supra, pp. 126, 127.

landlord, is corrected by its desire for low prices as a consumer. Nor will these prices be found, on an examination of the payments made by S. John's and Eton Colleges which I have printed in this volume, to differ very markedly from those on which part of the money rent depended.

For the rest, I am as before convinced that my averages could not be appreciably altered if a quantity of evidence, equal in amount to that which I have put before my reader in the sixth volume, were discovered. I have had proof of this. Since I had collected and drawn out the averages of several articles, as iron, lead, solder and glass, I found an unsuspected set of facts in certain Bodleian manuscripts. Some of these results have been incorporated with the labour prices in the sixth volume. The rest are in the Addenda. I have been generally able to incorporate most of these new facts with the average tables, annual, decennial, and general, of this fifth volume; and in any case, the additions, chiefly from London, where materials were cheap, have hardly made my averages vary by more than a slight and unimportant fraction. In point of fact, prices in the seventeenth century, even those submitted to by the consumer, were as competitive as wholesale prices are said to be now. I need hardly say, too, that the price at which an article reached the consumer is far more interesting to the student of social and political economy than the speculative price of a purchaser is, who intends to traffic in the article which he has bought, but whose expectations may not be verified by the consumer's payments.

I shall now proceed to exhibit, by way of comparison, the averages which I have drawn at first in two portions, the first sixty and the last sixty years, in order to enable the reader to contrast most conveniently the price of the necessaries of life, the price of those products which owe most of their value to labour and were not appreciably affected by rent, and the price at which the labour which produced and depended on the first and was immediately connected with the second was

remunerated. This is the most important relation which I can exhibit, but the facts, and I trust the inferences, will not be exhausted by this first comparison.

But in order to make this contrast complete, it will be necessary to take a third factor. This will be found in the price of these articles during the forty-two years 1541–1582, inclusive, on which I commented in my fourth volume (pp. 714–737), and contrasted with the facts of the previous hundred and forty years. As before, I take each successive set of averages at unity, and then indicate the rise, calculated to four places of decimals, in the two successive products. The three averages then which I take are from 1541 to 1582, from 1583 to 1642, and from 1643 to 1702.

	I. 1541–1582.		II. 1583–1642.		III. 1643–1702.		Rise from I to II.	Rise from II to III.
	s.	*d.*	*s.*	*d.*	*s.*	*d.*		
Wheat	13	10½	36	1	41	11¼	2·6084	1·1616
Barley	8	5¾	19	9¾	22	2¼	2·3538	1·1198
Malt	10	5	21	5	23	9¾	2·056	1·1215
Oats	5	5½	12	5	15	2½	2·2748	1·2248
Oatmeal	20	10¾	37	9¼	52	11	1·8076	1·4009

These figures and deductions prove that, as far as the principal kinds of grain are concerned, i.e. all those which were habitually used as human food in the sixteenth and seventeenth centuries, the principal elevation in price was effected in the first period from 1583 to 1642, the price of grain being more than doubled within sixty years. The average annual coinage of Elizabeth's reign was £125,311 in both metals, of James's £241,216 (supra, p. 126). The exigencies of trade with the East must have absorbed a certain portion of this extra coinage, and though Mun was probably right in his contention that the fact of this trade would inevitably lead to an importation of the precious metals, which would be largely in excess of the exportation, this very excess would to a large extent figure in the issues of the Mint[1].

[1] I assume, of course, that Ruding's figures are accurate. It has been said that he was the real author of Lord Liverpool's 'Coins of the Realm.'

The earlier prices, greatly as they are exalted over those which ruled for the hundred and forty years preceding them, do not in my opinion, as I am increasingly convinced, represent more than the accommodation of money prices to the new currency, and to the calculation of money values by tale. But the second set of prices, which exhibit over a cent. per cent. rise in nearly every kind of grain, must be ascribed to this concurrent set of causes: (1) an increasing dearness owing to the cheapening of silver; (2) a greater demand for grain products in a country which was making little or no progress in agriculture; (3) an increasing population; (4) a compulsory exaltation of rents; (5) a forcible depression in the wages of labour, or, what is the same thing, in a rising market, a vigorous and successful effort to keep wages down by law and police. I do not think that the existence of the first of these causes can be disputed, though it is quite possible that an exaggerated importance has been given to it. For the second and third, I do not think that the growth of population, partly due to immigration, partly to the settlement of Northern England, partly to the rapid extension of textile and other industries, can be disputed. All the evidence points to a stationary population up to the middle of Elizabeth's reign, and to a doubling of this population by the end of the century. The universal complaint of all writers on husbandry during this period proves the existence of the fourth cause, and the facts of the quarter sessions assessments, the direct effect of which on labour and wages I shall reserve to the last chapter of this volume, are conclusive as to the fifth.

I now come to a second series, the price of animal food and salt. In this list I must premise that the rise in the price of sheep during the second contrasted period is a little deceptive, for the second period includes the price of the sheep regularly bought after the Restoration by Eton College. I have no complete series of the price of mutton as I have of that of beef, but there is practically no difference in the price of the two

products, and there was not indeed for nearly a century after the maximum prices with which I am dealing were reached. The other is the price of salt, which was visited with heavy taxation during the last decade.

	I. 1541–1582.	II. 1583–1642.	III. 1643–1702.	Rise from I to II.	Rise from II to III.
	s. d.	*s. d.*	*s. d.*		
Beef[1]	1 7	2 5½	3 5½	1·5526	1·4068
Sheep	6 4	13 10	24 8	2·1842	1·7831
Capon	1 1¾	1 10¼	2 6	1·6182	1·3483
Goose	0 10	1 11½	3 0	2·035	1·5319
Hens	0 4¾	11½	1 3½	2·410	1·3478
Butter	2 8	4 9½	6 1	1·7812	1·2694
Cheese	1 5	3 2¼	3 7¼	2·25	1·0797
Fish	55 4	65 9¼	85 5¼	1·1890	1·2986
Salt	10 10¾	14 6	22 4¾	1·3308	1·5445

The average rise during 1583–1642 is, on the five kinds of grain taken above, from unity to 2·2203; on the nine kinds of provisions during the same period, from unity to 1·8111. Undoubtedly in both cases the rise is very serious, and we shall have occasion to note the consequences, which have to be inferred, when we come to discuss the bearing of these prices on the real wages of labour. In the present part of my enquiry I am concerned with general prices only.

The next set of tables which I put before my reader is that of the cost of artificial warmth and light.

	I. 1541–1582.	II. 1583–1642.	III. 1643–1702.	Rise from I to II.	Rise from II to III.
	s. d.	*s. d.*	*s. d.*		
Candles, dozen	2 7½	4 2¾	5 2¾	1·6111	1·2634
Sea-coal, chaldron	12 9¾	15 4	21 3¼	1·2025	1·3899
Charcoal, load	14 5½	24 4	39 0¼	1·6830	1·6036
Firewood, load	11 10	13 10¼	18 4¼	1·1708	1·3248

The sea-coal in this table is taken necessarily from those parts of England which were of easy access by water to the Newcastle pits, viz. the Eastern Counties, especially Cambridge and the Lower Thames as far up the river as Eton. The exaltation in the price of charcoal is in itself a sufficient

[1] Beef is the stone of 14 lbs.; butter and cheese the dozen lbs.; salt the quarter.

explanation of the desire which was felt to overcome the difficulties of navigation in the Upper Thames, and of the legislation which was enacted on the subject. The average rise in these four articles is from unity to 1·4168.

The next table is of the principal metals.

	I. 1541–1582.	II. 1583–1642.	III. 1643–1702.	Rise from I to II.	Rise from II to III.
	s. d.	*s. d.*	*s. d.*		
Iron, cwt.	26 2¾	33 11¼	38 10	1·2893	1·1442
Rolled lead, cwt. ...	10 11¾	15 2¼	17 6¼	1·3833	1·1535
Solder, cwt.	59 11	76 0	91 1¼	1·2684	1·1935
Pewter, cwt.	68 0½	98 1¼	120 5¼	1·4415	1·2277

Here the rise is from unity to 1·3456. It cannot, I think, be doubted, that though the price of iron and lead increased during this period, there were the counteracting causes at work of domestic development, and improved processes of production. The use of pit-coal in smelting iron is assigned to the middle of the century, and on turning to the annual and decennial averages of lead, my reader will I think find evidence of a declining market. But it is in articles like these that one would naturally expect to find the full and only the full effect of the new silver and gold, for rent was with one exception, the Cornish tin products, as yet an inconsiderable element in mining operations.

The next series is one, the whole or nearly the whole value of which is referable to labour, in which rent plays but little part, and there is no reason to believe that in these products there had been, or for many a year there was likely to be, any improvement or economy in the cost of production. Every producer however of these articles was directly, if the authorities chose to make him, under the quarter sessions system. That they did not always make him liable to it is certainly due to the local character of the industry. Besides, there was the proximity or distance of the material from the market, and the cost of carrying heavy goods from the place of origin to the place of use. Lime is dear or cheap as it is near the raw material, and clay products are similarly

affected. One of these articles, the last, was produced everywhere, for the raw material was always near.

	I. 1541–1582.		II. 1583–1642.		III. 1643–1702.		Rise from I to II.	Rise from II to III.
	s.	*d.*	*s.*	*d.*	*s.*	*d.*		
Lime, qr.	2	9¾	4	8¼	4	6	1·7037	·96
Lime, load	5	5	12	2	17	6	2·2461	1·4384
Tiles, *m.*	10	1¼	13	6¾	18	11¼	1·3631	1·4439
Crests, *c.*	10	1	13	4¼	18	9	1·3244	1·3333
Bricks, *m.*	11	3	14	1	18	1	1·352	1·2840
Laths, *m.*	9	3¾	12	0	13	0¼	1·2888	1·1558

In these articles the rise is 1·5463 for the first sixty years, on the average of the first forty-two, and from unity to 1·2784 in the next sixty. But the rise in laths is the most significant. It is from unity to 1·2888 in the first sixty, and from the same ratio to 1·1558 in the second. In this series one article, lime by the quarter, actually falls in the second period from unity to ·96.

I will now take another series, that of linen fabrics, of which I have been able to frame numerous averages.

	I. 1541–1582.		II. 1583–1642.		III. 1643–1702.		Rise from I to II.	Rise from II to III.
	s.	*d.*	*s.*	*d.*	*s.*	*d.*		
Table-linen, doz. yds.	18	6	27	6	27	10½	1·4864	1·0136
Napkins, common, doz.	7	9¾	8	10	10	10	1·1307	1·2264
Napkins, superior, doz.	10	0½	13	10½	15	1¾	1·3817	1·0899
Shirting, doz. yds.	12	7½	15	10¼	16	2½	1·2557	1·0226

In drawing these averages, I have united the evidence on better and ordinary table-linen in the period before me, because they were not distinguished in the tables of the fourth volume. In the whole range of articles which have hitherto been compared, none shows at either period so little rise, for taking them together, the average rise in linen fabrics between 1541–82 and 1583–1642 is from unity to 1·3136, and in the latter from unity to 1·0881. The cause of this I think is to be found in the general diffusion of this industry and to the immigration of the Flemings and French, and thereupon a cheapening of the process, which countervailed the generally upward tendency of all prices.

The rise in the price of woollen cloth is not more marked,

and is probably to be explained on the ground that during the seventeenth century great progress was made with the domestic manufacture of woollens. I have found that it would not be possible to draw a safe comparison between those epochs, except in the same material. This is supplied by the choristers' cloth purchased for their use by King's College, Cambridge.

	I. 1541–1582.		II. 1583–1642.		III. 1643–1702.		Rise from I to II.	Rise from II to III.
	s.	*d.*	*s.*	*d.*	*s.*	*d.*		
Choristers'cloth, doz.	45	9½	59	2¾	66	8¾	1·2993	1·1266

I will now take the facts connected with wages. There are thirteen which may be compared at the three different epochs, and are by the week.

	I. 1541–1582.		II. 1583–1642.		III. 1643–1702.		Rise from I to II.	Rise from II to III.
	s.	*d.*	*s.*	*d.*	*s.*	*d.*		
1. Carpenter, highest	6	9	7	0½	12	2¾	1·0432	1·7337
2. Carpenter, average	5	0	6	2¾	10	2¾	1·2458	1·6421
3. Mason	4	9	6	5¾	9	10¾	1·3640	1·5273
4. Sawyers, pair	8	9	12	1½	19	0¼	1·3587	1·5687
5. Sawyer, 100	8	0	12	6	15	7¾	1·5729	1·2517
6. Tiler or Slater	4	10½	6	3¾	9	8¾	1·3376	1·4920
7. Tiler and man	7	7½	10	6½	15	0¼	1·3825	1·4249
8. Plumber	4	9	7	10¼	14	0¼	1·6535	1·7851
9. Bricklayer	5	2½	6	4½	12	2½	1·22	1·9213
10. Joiner	5	3	7	3¾	12	7¾	1·3929	1·7293
11. Mason's Labourer	3	4½	4	2¾	6	7¾	1·2531	1·5714
12. Agric. Labourer	3	3	4	10	6	4¾	1·4872	1·3233
13. Woman's Labour	2	2¼	2	3	2	6¼	1·0285	1·1388

This table of wages, and the increases derived from them, require some explanations. Three of the rates of wages by the week are in the second column slightly, in the third largely, affected by London wages. These are the 8th, 9th, and 10th. Had I taken the highest rate at which the mason is paid, the same result would have been exhibited in the weekly wages of this artisan. But in the earlier period, i.e. from 1541 to 1582, the averages of wages are derived from London as well as from other prices. As a matter of fact, when country work is hired, wages, from 1583 up to 1642, are almost invariably 8*d.* for agricultural hands and masons'

or bricklayers' men, and 1*s.* a day for artisans, or 4*s.* and 6*s.* a week, assuming that the Saturday was not a half-pay day. After this time wages are as regularly 1*s.* and 1*s.* 6*d.*, or 6*s.* and 9*s.* a week, and remained at this rate for a century, as I find from the wages paid by Lord Lovell to his workmen from 1731 to 1735, and from the evidence which Arthur Young collected. Higher averages than these must therefore be assigned to exceptional causes—the difficulty or unpleasantness of the work, the occasional influence of London prices, and perhaps the occasional scarcity of workmen. Thus, as early as 1630 some London masons got 2*s.* a day, or double the ordinary wages, some only 1*s.* 8*d.* Labourers too got from 1*s.* 6*d.* to 1*s.* at a time when country-folk have only 8*d.* (vol. vi. p. 679). But I have included these exceptional advantages, that I may not seem to press my argument as to the condition of labour too strictly.

On an average wheat rose 134 per cent. between 1541 and 1583 over the prices which had prevailed on an average of two and a-half centuries before, and between 1583 and 1702, 209 per cent. more. Between the early period and 1541–1582, wages, taken from the mean of eleven kinds of labour, rose 60 per cent.; and during the hundred and twenty years of my period, the mean rise of thirteen different kinds of labour is a little over 106 per cent. more. This average includes the wages earned by the three kinds of artisans to whom I have referred above as being affected by London prices.

It will be seen that generally, while all kinds of provisions rose most in price during the sixty years 1583–1642, the wages of labour rose least during this period. To this indeed there are only two exceptions; one that of sawing by the hundred, where the difference is marked, and that of the agricultural labourer, where the difference though substantial is slighter. But the practice of piecework sawing becomes rarer as time goes on, and the record given of it almost exactly conforms to the combined wages of artisan and labourer in other country callings: 9+6, 15*s.*

No important information can be derived from the price of three kinds of foreign produce, ordinary Bordeaux wine, sweet Spanish, and refined sugar, for the fiscal arrangements made at the end of the century materially affect the price of these articles.

	I. 1541–1582.		II. 1583–1642.		III. 1643–1702.		Rise from I to II.	Rise from II to III.
	s.	*d.*	*s.*	*d.*	*s.*	*d.*		
Claret or white wine	1	4½	2	4¼	3	9	1·7121	1·5938
Muscadine	2	2½	4	2	8	9¼	1·8868	2·055
Sugar	12	10¾	19	2¼	12	8¼	1·4479	·6612

It may now be convenient to give the rise per cent. (or in one case, fall), from the prices of 1541–1582, to those of 1583–1702.

Corn.	
Wheat	209
Barley	162
Malt	129
Oats	179
Oatmeal	153
Average	166
Animal Food.	
Beef	109
Sheep	290
Capons	118
Geese	260
Hens	226
Butter	128
Cheese	154
Average	184
Light and Heat.	
Candles	99
Sea-coal	66
Charcoal	135
Firewood	55
Average	89
Fish and Salt.	
Fish	54
Salt	105
Average	79
Metals.	
Iron	48
Lead	60
Solder	77
Pewter	77
Average	65½
Materials.	
Lime, load	223
Lime, quarter	60
Tiles	88
Crests	86
Bricks	61
Laths	49
Average	94½
Paper, etc.	
Paper	56
Parchment	114
Rope	20
Average	60
Foreign Produce.	
Claret	173
Muscadine	297
Sugar	2
Average	156
Linen.	
Table	50
Inferior Napkins	38
Superior ditto	51
Shirting	29
Average	42
Woollen Cloth.	
Choristers'	46
Labour.	
Carpenter, highest	81
Carpenter, average	104½
Mason	108
Sawyers, pair	117
Sawyer, hundred	96
Tiler or Slater	99
Tiler and man	97
Plumber	195
Bricklayer	134
Joiner	141
Mason's Labourer	97
Agricult. Labourer	97
Woman's Labour	15
Average	106[1]

[1] These percentages have been calculated by my son, Leonard J. Rogers.

But the facts are more suggestive if one takes those figures which designate the rise in the price of provisions from 1583 to 1642, and compares them with the price of labour. Here it will be found that the rise in the former is in the aggregate of twelve articles 108 per cent., of the latter 32 per cent. It must have been at such a time especially that the workman was pinched, and most of all, when, his wages being unaltered, or even less than the average, he had to undergo the misery of such years as 1586, 1596, 1597, 1608, 1617, 1622, 1625, 1630, 1632 and 1637, to be succeeded by the long famine of 1646–51. It is no wonder that the Fellows of Merton College, as their register (1596) tells us (vol. vi. p. 662), resolved to make a weekly grant from their resources in aid of the poverty which grew more heavy every day, and to continue it till the next harvest should come to hand.

Having divided the period before me into two equal portions, and having compared the prices with those of 1541–82, and with each other, it remains that I should attempt to find out at what periods the old prices were finally enhanced.

I have several times referred to the dear decade, 1643–52. It contains the highest price of all kinds of grain (except the leguminous plants), of hay, of candles, of salt (till the heavy excise was laid on salt at the end of the seventeenth century), and of such cloth as was regularly purchased. It would seem then that the exceptional dearness of the time was to be assigned mainly to bad harvests, for the articles which are now dearer than in any part of the period are either agricultural produce, or the manufacture of agricultural produce, or an article which like corn depended on the same cause which renders agricultural produce abundant, a full supply of direct solar heat, for salt was, and continued to be till the end of this century, a product of solar evaporation.

I should therefore have concluded that the sole cause of this temporary and great exaltation of prices was entirely the effect of bad grain harvests, had it not been for the fact that in most other commodities, though this decade is not the

dearest of the whole twelve, there is a marked and generally permanent rise in all products at this crisis. My readers will of course anticipate that when corn is dear, other articles tend to fall in price, because a stint in the necessaries of life leaves a narrower margin for that consumption which is more or less voluntary. Now in this decade a notable rise occurs in the price of beef, mutton and lamb, of horses, of most kinds of poultry, of most kinds of fuel, of the commonest kind of fish, of wine, of lead and solder (iron being rather lowered, because the Sussex forges were at this time in full work), of most kinds of building materials, of most kinds of linen, and of most kinds of cloth. It is true that, in all these articles, larger prices are subsequently found, but it is rarely the case that the higher subsequent price is so great an advance as that made at this epoch. I conclude then that what was practically the full effect of the new prices was exhibited at and after the conclusion of the Civil War, for it was when the war was virtually over with the battle of Naseby (June 14, 1645) that the rise was most characteristic. Of course it is a well-known fact that war, especially civil war, is exceedingly destructive and distracting, and that a sharp rise in prices almost invariably follows on warfare. But the armies of the Parliamentary war were small, the interests engaged in the quarrel were narrow, the working classes had been by this time too effectually impoverished to care for the matters between King and Parliament, and it does not appear that the war was one in which pillage was practised. England was in those days spared the miseries which the hordes of enlisted brigands inflicted on Germany during the Thirty Years' War.

Prices steadily creep up during nearly every decade of the first sixty years. This is noticeable in corn, the first and greatest rise being after the first ten years, in that most capricious and uncertain of products, hops; in hay and straw; in stock and meat; in dairy produce and poultry; in all kinds of fuel; in most kinds of fish; in salt; in metals; in

building materials of all kinds, and in clothing. On the other hand, the price of Eastern produce rather declines, and that of linen is almost stationary. Now a rise which is so general, and with few exceptions so regular, must I am confident be largely ascribed to that cause to which superficial writers and speakers always assign too great a force, the progressive cheapening of money. Now, according to Ruding, Elizabeth coined on an average £125,311 a year, James £241,236, and the Queen's coinage includes in the re-coinage (£733,248) the average of about six years in a single issue. The coinage of James may therefore be fairly taken at double that of Elizabeth annually. How the increase was obtained is not quite so clear, but I imagine that the principal agent in the operation was the East India Company's trade, and the development of textile industries at home. The comparatively slight rise in woven products points to exports, and the condition of Central Europe at the time, during the horrible war of religion known as the Thirty Years' War, suggests the market, for though the non-combatants were half-extirpated, the soldiers were clothed and fed. So, in spite of the Berlin and Milan decrees, the English clothiers did most successful business during the Continental War, for Napoleon's soldiers were clad in the cloth of which the adventurer forbad the sale, and by a trade on which this idol of idiots denounced the penalties of piracy.

After the middle of the seventeenth century the rise of prices slowly continued, as I have pointed out in the course of this chapter. But the rise is comparatively slight. In grain it is 20 per cent., in other provisions and salt 40 per cent., in fire and light nearly 40 per cent., the rise being chiefly in charcoal (due to the destruction of the woods), in metals 18 per cent., in building materials 27½ per cent., in linen nearly 9 per cent., in woollen cloth 12½ per cent. These prices are partly due I believe to scarcity, partly to growing wealth, for it will be admitted that as a community contains an increasing number of non-producers, prices tend

upwards. The reverse of this phenomenon will be curiously illustrated by the facts which will appear in the last two volumes of this history, and especially during the first sixty years of the eighteenth century.

There is yet another consideration, to which I must recur. To what extent are the exalted prices of the seventeenth century due to the increase of population, especially when no corresponding addition is made to the produce of the soil? Though I am not quite willing to accept Gregory King's estimate as to the rate of production at the end of the seventeenth century, it is difficult to entirely reject it, in the face of his great reputation among his contemporaries as an accurate observer.

I have no doubt that the population of England and Wales at the end of the seventeenth century was about $5\frac{1}{2}$ millions, despite the terrible plagues with which England was visited[1], and I have no more doubt that it was not more than half that number at the end of the sixteenth. Part of this increase (the returns of the Hearth Tax quoted above are conclusive on the subject) was due to the greater occupation of the Northern counties, which appear, notwithstanding their poverty, as indicated by their small tax-paying power, to have been nearly as densely peopled as many parts of the more prosperous and settled South. This settlement of the North was I conclude mainly due to the political union of the two countries, England and Scotland, and to the removal of those incessant disturbances which their political severance involved. I am not of course referring to the Parliamentary Union, the effects of which, if it were only the riddance of the Scottish Parliament, a most ridiculous and mischievous mockery of representation, was an unmixed boon to the inhabitants of the Northern part of the island, and in some particulars to those of the Southern part.

But besides this natural and highly desirable growth of numbers in the Northern counties, in which by the way the most

[1] For the losses of life by pestilence, see vol. vi. pp. 661, 662, 664, 668.

malignant activities of the quarter sessions assessments were manifested, there was a far less satisfactory increase induced. Adam Smith (Wealth of Nations, I. viii), with that sagacity and intelligence which distinguishes him so markedly from his successors, saw that the misery of a people was no bar to its increase, and, if the facts had been before him, would have proved his case, instead of indulging in idle and shallow speculations about the present causes of a present mischief. He would have sought them, as all men of sense should seek them, in unnatural, in factitious conditions. During the first half of the seventeenth century, the population of England grew as rapidly as that of Ireland up to 1846, and under the same set of circumstances, during the growing misery of the poor, due to the rapacity of landowners, assisted by wicked laws.

In one particular the England of the seventeenth century was more fortunate than the Ireland of the eighteenth. Her manufactures were not destroyed by the malignity of an alien parliament, the strings of which were pulled by greedy traders and covetous landlords. It was the object of the English Parliament that English industries should flourish, even if a desert was made elsewhere. But they were to flourish at the expense of labour, and to the profit of the producer of raw material and of the employer. Nine-tenths I believe of the growth of the English population in the seventeenth century was due to the spread of the linen and woollen manufacture, especially of yarns, spun in private houses, and sold to the dealers or weavers at such prices as are indicated by the cost of the raw material, and the payment made by the pound or stone for spinning, and the wages earned by the yard for weaving, some of which I have been able to record in the sixth volume. It was poor pay, for very often the industry was subordinated to other avocations. What it came to be at last is proved by the evidence taken before the Factory Acts were passed. It could be specially carried on by women and young children. Their miseries may be imagined. They have not been and cannot be told.

CHAPTER XXVII.

THE CONDITION OF THE TENANT FARMER, 1583–1702.

DURING the greater part of the period before me, many among that very numerous body of small freeholders, who had been purchasers during the aristocratic Civil War of the fifteenth century, survived through the sixteenth and seventeenth. The nobles of the Dissolution acquiesced in the spoliation, partly because Henry pitted his new creations against the survivors of the old families, most because he bribed both new and old to repletion with the spoils of the regular clergy. But much of the Church property was bought by private persons or speculators, as a cursory inspection of Dugdale would prove, and at market prices, greatly depressed, no doubt, by the prodigious quantity of land which the wastril king threw on the market. The old free- and copy-holders remained, though, as Norden's dialogues on the Surveyor's Office show, exorbitant fines on alienation and descent in copyholds and sharp practice with regard to freeholders on fee farm rents had not yet been restrained.

From the earliest information of a positive character which we have about tenancies, it is clear that there were always tenant-farmers on leases, generally of short, but sometimes long, terms. In my earlier volumes I have pointed out that besides the tenant on lease, who cultivated land with his own stock, there were numerous stock and land leases, especially of monastic lands, and that this system lasted till the

Dissolution, so extensively indeed, that much of the interest which the Crown had in this vast confiscation was a deferred or reversionary one. These tenancies were constantly of numerous parcels, held for terms, the date of the lease being various, so that a tenant was constantly at the end of the term for which one parcel of land was granted, and at the beginning of the term of another parcel. He was therefore fairly secure of his holding, though his rent might be raised on him at the close of each term, and on each close, ploughland, yardland, or meadow as it reverted to the lessor.

Rent may be of two kinds:—An economic rent, strictly so defined, in which the tenant-farmer, having theoretically entire discretion in adopting and continuing his calling, and absolute facility for transferring his tenure from one holding to another without appreciable loss, procures the mean rate of profit which other industrial avocations are reputed to have, in the following of which capital and skill are fluid and mobile, and can therefore be employed with no more risk in one direction than another. This is the theory of profit held by economists of the speculative school, who having derived their illustrations mainly from the modern money market, have written about agricultural and manufacturing capital as though it could be manipulated with almost as much ease as a balance at a banker's or an investment in consols can be. But it is almost superfluous to say that such an economic rent has never been in existence. It is true that the freedom of a tenant in the first occupancy of agricultural land is apparently perfect. I say apparently, for there may and generally does exist an urgent demand for the material on which to exercise capital and skill, especially if the industry be the only one possible, and therefore the discretion in making a contract for occupancy is or has been generally curtailed. But immediately on the tenant entering into possession his freedom is at an end. He cannot extricate himself from his holding without serious

loss, and this liability of his has been the lever by which unscrupulous landowners and unscrupulous agents have raised rents, have appropriated the tenant's capital, and have brought British agriculture into its present (1887) distressful condition. Under the threat of the loss which eviction involves, a landowner can always gradually ruin his tenant, and many have done so, not indeed without ultimate damage to themselves. It may be safely alleged that no just landowner will ever use the powers which the situation puts into his hand and the law is accustomed to enforce, and late experience has proved that no wise landowner will do what no just landowner would do. It is no answer to say, as Norden said near three centuries ago, that if tenants offer rents which they cannot be expected to pay, landlords are not to blame for accepting the offer. If a borrower offers a banker fifteen per cent. for a loan, any sensible banker could find no better reason than the offer for refusing the loan altogether.

The other kind of rent is the famine rent, that is the price which the owner of that which is a more or less exact monopoly is able to extract from the applicant whose existence depends upon procuring a share of what the owner has to let. We in England have no experience, or only a recent experience of famine rents, and this recent experience has come upon us unawares. But famine rents have been normal for nearly two centuries in Ireland, and for some time past in the Scottish Highlands. Between beggary and occupancy there has been no alternative to the Irish cottier and the Highland crofter, and the landowner in these unhappy regions has used powers which the situation gave him mercilessly and to the full. I shall try, in the course of this chapter, to show that during the seventeenth century something very like the Irish system prevailed in England. Rent is the residual value of agricultural and some other products, after an average rate of profit is obtained, risk is insured against, and labour is adequately remunerated. In Ireland, as I have abundantly seen, recently as well as twenty years ago, the process has

been inverted, and rent has been made all the value of the product, beyond the bare existence of the cottier.

To enforce contracts is undoubtedly the first duty of society and law. But the duty is conditioned by an obligation which is frequently lost sight of by interested partisans. The State is not only justified in determining, but bound to determine, what contracts it will enforce; and if it decides to enforce, to what extent it will enforce. Some contracts it declares to be immoral and contrary to public policy. These it not only declines to enforce, but not infrequently punishes those who presume on attempting to complete such contracts. Others it repudiates or modifies, as complete or partial duress is employed by one of the parties against the other. But a famine rent is rent extorted under duress, as is also a rent exalted by the threat of eviction, when the certain loss of the occupier is apparent to him, and of course not a whit less known to the owner or the agent. It is justice on the part of the State to protect a tenant against so one-sided a contract, and it is in accordance with public policy that the State should interpret contracts for the use of land equitably.

Now the complaint that the landowner was using powers which the law gave or permitted him, or did not notice that he was exercising, to exact a famine rent, is heard very early in English agricultural history. I have been able (vol. iv. p. 94) to cite Fitzherbert in the beginning of the sixteenth century as a witness to the dangers which surrounded agriculture in that age from the landlord's avarice and the tenant's uncertainty; and the famous passage in Latimer's sermon, in which he compares the tenancy which his father held with that which his father's successor in the same estate held, is cogent evidence for the practice which Fitzherbert condemns a generation before Latimer.

There is a succession of witnesses from the beginning of the seventeenth century, which testifies to the injury which the rapacity of landowners put on the tenant, and through him on

the progress of agriculture, especially during the first half of the century. At the beginning of the century, Norden (supra, p. 42) gives a grudging testimony to the fact. It is sufficient to refer to what I have quoted in the second chapter of this volume from Plattes and Blyth.

Now there is good reason to believe that after the reform of the currency and the general stint ensued which Stafford's pamphlet so clearly describes, there was not for some time any opportunity for the compulsory enhancement of rents during the sixteenth century. But it is also clear from the statements of Norden that the process was begun, and that it was exciting indignation and alarm among the tenant-farmers at the beginning of the seventeenth century. Still it is far from easy to get at the facts, and to follow the process by which good arable land, let at less than a shilling an acre in the last quarter of the sixteenth century, was let at 5*s*. to 6*s*. at the end of the first quarter of the seventeenth, while the rent of pasture was not more than doubled.

The great corporations of Oxford and Cambridge, Winchester and Eton, let their lands habitually on a twenty years' lease. In these lettings there is always a reserved rent in money, and another in wheat and malt. This reserved rent, with the money equivalent of the corn rent, is the amount which was paid before the change in money values occurred, or rather at the time when Elizabeth's statute came into operation. That these corporations tried to raise their rents is certain, that they were not able to do so to the extent that private owners could is clear, and thereupon they had recourse to beneficial leases and the levy of a fine on renewals.

I have before me two manuscripts containing the record of fines levied by two Colleges. One, from Rawlinson's collection in the Bodleian Library (C. 954), is an abstract of the fines paid on renewals for the estates of King's College, Cambridge, from about the beginning of the seventeenth century, occasionally a little earlier, to near the latter end of Charles the Second's reign. The volume was probably written for the Provost; its

earlier entries were certainly written by the clerk who engrossed the commons' books of the College at the beginning of the century, for I instantly detected a handwriting which had been so familiar to me in examining the King's College accounts.

The other is a manuscript volume, kindly lent me by the Warden of New College. It is a similar record for this College, beginning about the middle of the seventeenth century, and carried on to the last quarter of the eighteenth. Dr. Sewell tells me that it was always, during the time of the beneficial leases, the duty of the Warden to fix the fine on renewal. This book contains divers tables intended to assist the Warden in fixing the fine, if he could only get at the important factor: what was the rent at which the College estate was sublet by the lessee, or middle-man? If he could find this out, it was the practice, after deducting the fixed rent in money and corn, to take one and a-quarter year's improved or rack-rent value for a renewal after a short lapse, as four or five years, and a year and a half if the renewal was required after seven years of the lease had elapsed.

These leases, rightly called beneficial, were eagerly sought after by the great landowners, who made a considerable profit on subletting them. Thus in 1612 King's College let its manor of Ruislip in Middlesex to the second Lord Salisbury, and two others to Sir Justinian Lewyn in 1606. The puzzle for the head of the College was to find out what was the rate at which the land was sublet, and the note-book is full of hints as to the means adopted in order to arrive at this important information. The progresses of the head and fellows were in later years undertaken for this end. But even when they gained or guessed at the information (and their own incumbents frequently helped them in the enquiry), it was not always easy to give effect to their knowledge. The tenant often threatened that he would not renew, though almost invariably he gave in at last. Perhaps too the corporation was unwilling to offend a great man, who was their tenant, by

insisting on what were their rights, even though they abated something from what in their decided opinion was within the value of what they were called on to renew. One illustration of this difficulty is so significant, that though it occurs at a later date than the period with which these volumes conclude, it is worth putting in a note. Lord Litchfield, Chancellor of the University, was lessee of a piece of land in Bucks, which went by the name of Seager's Close, and had been let (30½ acres) at from 18*s.* to 15*s.* an acre in the reign of Charles II. In 1766 it could have been sublet at 30*s.* an acre. The College, which had previously taken a fine of £25 in 1759, determined to raise it to £55, or a year and a-quarter's rent, minus the reserved rent of £4, and valuing it at £48 a year. Lord Litchfield refused to renew, and the College eventually let it at £40 a year, at rack-rent[1].

The conditions on which these beneficial leases were ordinarily granted by King's College are as follows. The document begins with defining the extent of the grant, and generally reserves timber and underwood, with the right of access and of carriage, though the tenant generally has housebote. The term is almost always twenty years. Then comes the reserved or ancient rent, in money or corn, the date at which the payment was due being given, with a clause of forfeiture within a

[1] The following is Lord Litchfield's letter to his steward:—

'Dec. 11.

'I am so much surprised by the fine which the College hath proposed, that I can give no answer to it, except that *of my determination not to pay it.* I will await the event of Time, and I find that some of these exorbitant demands (which are much the subject of conversation) will probably become an object of *publick notice.* At the same time, I would be glad to hear from Mr. Pryor, upon what Idea the gentlemen have thought fit to make this extraordinary demand.

'Yours,

'LITCHFIELD.'

The poor Warden comments privately on this:—

'Dec. 18, 1766.

'Quære. Upon what Idea could our Noble Lord and Chancellor write this extraordinary Letter, implying or rather expressly calling our Fine exorbitant, and threatening us in some measure with public notice, while he knew not upon what Idea we made it?'

given time if the tenant makes default, the time being generally short. Then follow the covenants. In none which I have examined are there any restraining the tenant from selling straw or hay off the land, or defining the order of the crops, though in earlier leases it was common to prescribe courses and fallows. The only remnant which I have seen of this ancient custom is an occasional clause requiring the tenant to leave a spring fallow on the expiry of his lease, an event which rarely occurred. The tenant was to do all the repairs, an enormous relief to the landlord, as I have pointed out in an earlier volume (iv. p. 62) in commenting on the great burden of this liability. He was also to bear all local charges, ordinary or extraordinary; to keep in order all hedges, ditches, and fences; and very often to house and entertain the Provost and fellows for four days and four nights while on progress, with their horses and servants, and sometimes twice a year. If a manor was held within the tenancy, he was to collect all rents, fines and other dues of the lord, and account for his receipts at the audit held during progress. Sometimes he covenanted to find pasture in the winter or summer months for a limited quantity of sheep, and additional produce (generally poultry) rents were put on him. Occasionally he supplied the corporation with corn and sheep under covenant at fixed and low rates. Sometimes he bound himself to supply the landlord with corn and fatted boars at market or fixed prices, the value being deducted from the ancient rent, and an allowance being made for carriage. There is no mention of game, but sometimes the tenant is assured the right of free warren. Generally too the lease imposes on the tenant the duty of surveying the estate and making what the lease calls a terry. The document generally concludes with a provision that the tenant should not alienate without consent, and that if the consent be given, the alienee should enter into a fresh lease within a short time, with of course a fresh fine.

When I found or got access to these records of fines on renewal, I thought that I should find the key to the rent of

land in the case of some of those Colleges which have contributed so much to the information contained in these volumes, and I spent many hours in striving to interpret the progressive rise in rent from the progress of the fine. But I discovered, to my disappointment, that I had lost my labour. In the first place, the particulars in the fine books rarely give the acreage of the estate, and as rarely the extent to which this was enlarged by enclosures, or lessened by exchanges which corporations could always effect, or by alienations which they could complete with the licence of the Visitor. I found therefore that a comparison between an estimated rent at the beginning of the seventeenth century with the rack-rented estates of these corporations, specified in the parliamentary return of 1874, left it uncertain as to whether the dimensions of the estate at (say) 1600 and thirteen years ago were the same. And then the lease was beneficial, i.e. it gave no hint as to what was paid by the subtenant[1].

Much land beyond that possessed by academical corporations was let on the principle which they adopted. Leases for lives, annuities from land for lives, and beneficial leases exactly like these referred to above, were common, universal with ecclesiastical corporations, and not infrequent with private owners. How exceedingly beneficial they were to the original lessee is very conclusively proved by the action taken by Parliament after the establishment of the Ecclesiastical Commission, which at once refused to renew the leases, and proceeded to run out the term. Parliament gave assistance to the lessees, under which they acquired the freehold of these leases on most advantageous terms. The property either belonged to the Church or to the public. If to the former, the landowners robbed the clergy; if to the latter, the nation.

The beneficial lease is all but extinguished. Warned by

[1] From the New College fine book, it seems that the reputed rack-rent, which the College took as the basis of the fine, was in fact 25 per cent. below the actual rack-rent.

the experience gathered from the treatment of Church property, the great institutions of education in England began, cautiously and partially, to refuse renewals. They probably dealt first with those who could not get the help of Parliament in aid of legal plunder. At present, I believe, few of these tenancies, which played in past time so great a part in the agricultural history of England, survive.

The rise in the rents of these corporations, partly due to the increasing value of their corn-rents, partly to the fines, does not get its full effect till a late period of the seventeenth century. For example, the lease of the manor of Ruislip in Middlesex, renewed after a lapse of four years in 1607 at a fine of £66 13*s.* 4*d.*, was again renewed after a lapse of seven in 1664 at £320, the rule being 1¼ year's rack-rent after four, 1½ year's after seven years of the original lease had passed. They must therefore have valued the rent in 1607 at £52 13*s.* 4*d.* a year, and in 1664 at £213 6*s.* 8*d.* The fine for Monxton, Hants, in 1603, when eleven years out of twenty had elapsed, was £20; in 1675, when eleven years had again elapsed, it was £90.

One factor in the inevitable increment of agricultural rent in England during the seventeenth century, the rapid increase in the price of corn, was present in the fixed or reserved rent of the corporation estates, and was therefore, *pro tanto*, excluded from the rack-rent calculation. Now under the statute of Elizabeth, the portion of old rent which this system acted on was one-third of the amount. The fine then, in so far as the reserved rent was a deduction from the rack-rent, was only operative over two-thirds of the old rent. Now these facts are exhibited in the income of any typical College. At the beginning of my period, King's College, Cambridge, had not adopted that alteration of the College Leases Act which afterwards became habitual, though it soon did. Its money-income in 1583 was £1308 17*s.* 2½*d.*; in 1584, £1308 18*s.* 2½*d.*; and the average for the decade is £1487 1*s.* In the next decade the average is £1989 1*s.*, the mean of the two being £1738 1*s.* During the next fifty years, it had risen to

£2811 8*s.* 3¼*d.*, the rise being entirely due to the corn-rents. Now taking the mean of the first twenty years at unity, the rise in the next fifty years is to 1·6177. In the first twenty years of the period, 1583–1602, the average price of wheat was 29*s.* 3¼*d.*, in the next fifty 41*s.* 4¼*d.*, a rise from unity to nearly 1·4124. Had King's College at once adopted the statute of 1576, I make no doubt that the money-rent would have almost exactly corresponded to the corn-prices.

An equally important factor in the elevation of rents is the fact that bye occupations were carried on by tenants, who out of the profits which they derived from these subsidiary callings could pay the exalted rent and become more or less indifferent to it. Now it is certain that early in the seventeenth century, the spinning and weaving of woollen, linen, and hempen cloth was a very widely distributed industry in England, and that the products of this cottage and farm-house manufacture were purchased by agents all over the country. If the price realised by this industry was fairly remunerative, dependence on the sale of agricultural produce was less urgent and engrossing, and the landowner would be quick enough to take advantage of the chance which the position of the tenant offered him.

Such, as I have certainly found, was the origin of the Ulster famine-rents, the conditions of which I have been recently studying on the spot. A generation or so ago, I am informed, nearly every Ulster farm-house had its spinning-wheel and hand-loom; and even now this domestic industry is far from extinct, factors still visiting the farm-houses to collect the product. During the time in which this manufacture was flourishing the weaving of the household paid the rent, and as long as a sufficient price could be got from this produce, the tenant was, comparatively speaking, indifferent to the amount of rent imposed on his holding, provided always he could pay what was demanded out of the bye-product. The domestic industry then suggested an elevated rent, and I make no doubt, from what I have seen, that owing in great part to this cause, Ulster farm-rents are more emphatically famine-rents

than they are in any part of Ireland. But it is difficult to connect these progressive rents with the Ricardian theory on which economists lay such stress, unless a new meaning is to be given to 'the indestructible powers of the soil.'

I am persuaded that, generally, the rise in the tenant-farmer's rent was effected at different dates during the first forty years of the period before me. There was a small rise in the first decade, a much greater one in the second, and, as the statements of Norden admit, a far greater one in the third (the Surveyor assigning it to the competition of tenants, a competition which need not deprive it of the character of a famine-rent, as I have attempted to describe such a rent), and a further rise in the fourth.

Now by the great kindness of Lord Leicester, I have had lent to me from the Holkham archives what appears to be a complete register or rent-roll of all the estates possessed by the Coke family in Norfolk between 1629 and 1706. The acreage of each estate is given, and the rent at which it is let: first in 1629, in the time of Chief Justice Coke; then in 1651, in the time of Robert Coke; then in 1656, in the time of John Coke, senior, his son; next in 1667, in the time of John Coke, junior, his grandson; next in 1677, in the time of Robert Coke, also his grandson; and, lastly, in the year 1707, in the time of Edward Coke, his great-grandson and father of Thomas Coke, first Lord Lovell and afterwards Earl of Leicester. The document was I conclude drawn up in the last year, for in an eighth column, unpaid rents, under the name 'defalks,' are registered. From this volume it is easy to extract illustrative valuations of farmers' rents, though it does not appear that all the Coke tenants were of this class, as among the tenants are personages like the Walpoles and members of other old Norfolk families.

In making my extracts, I have been careful to deduct copyhold and fee-farm rents, so as to obtain farmers' rents only. Now on examining the list of twenty-two estates, I was struck with the generally unaltered character of the rents during the seventy-seven years with which the register deals. The first

date is shortly after the crowning act of Coke's public life,—after which he retired from a long and eminent career,—the composition of the Petition of Right. I presume that during the active life of the Chief Justice, whom posterity has declined to degrade from the office which the King took away from him, Coke had been accumulating this estate, through which his descendants have done more lasting services to English agriculture than any other family in England. It is probable then that Coke succeeded to valuations which had been made previously. It is clear that he and his successors in title considered that the maximum rent had been required from the tenant. The rents indeed are not absolutely unchanged, but the variation is rarely large.

The average rent of the twenty-two estates which I have taken in my list is a fraction (not quite a half-penny) under *6s.* an acre. One small estate is let at *9s.* *7¼d.* an acre, another small one at *3s.* *1d.*, and a very large one at *3s.* *9d.* Generally, the larger the estate, the lower is the acre-rent on it, a fact which seems to suggest that some of the rents were what we call accommodation rents, and the Irish landlords—always quick to mislead—styled, a few years ago, town-parks.

If wages were only slightly raised, if wheat and rye were fully doubled in money value, and if in addition domestic industries were pretty generally diffused, as they were certainly in Norfolk after the revival or development of the say industry, it is not remarkable that land let at a shilling an acre thirty years before should have been easily let at six times the amount when Coke completed the first surviving survey and valuation of his estate. In these three factors, cost of production, market price of product, and the assistance given to the landlord by the diffusion of bye-industries, lies, I am sure, the explanation of the average rental of the Coke estate. The price of wheat was doubled, the cost of labour was only slightly increased, and even if no improvement were made in agriculture, the rent can be explained by the price.

Another rental of the seventeenth century which has come

into my hands is that of the Belvoir estate, which I procured by the kindness of Lord John Manners. The extent of this estate in 1692 was 18,837 acres, and the rental £3,367, or a fraction over 3*s.* 6*d.* an acre. In 1692 the rents were revised and slightly raised, the rental being £3,690, or a little over 3*s.* 10*d.* an acre. I am well aware that this estate has been by ancient tradition very leniently rented, as I learned, years ago, when I had for a time the use of a house on it. But I cannot account for the discrepancy between the Belvoir and the Coke rentals on this ground alone, and I conclude that the cloth-weaving industry had not taken such a hold on this district as it had on Norfolk. It would seem that, though one of the Belvoir estates is described as chiefly pasture, the rent of this part of the property is rather below the average.

A third rental, printed in vol. vi. p. 713, is of the estate of Lord Kingston in North Notts. In this case it appears that the owner entrusted one of his tenants, Mr. John Wildbore, with the collection of his rents. How the rental came into the possession of the well-known Samuel Pepys I do not know, but it is among his papers in the Rawlinson Collection. This is by far the most highly rented estate which I have found, the average being about 10*s.* an acre. But on the other hand, much of the property is described as meadow and pasture, the goodness of the farm-houses is dwelt upon, and in two of the parishes it is said that the tenant has rights of common. Some of the tenements too are cottages with land attached to them, the rent of which slightly increases the rent by the acre; and in Saundby and North Wheatley the tenancies are said to be tithe free, a very important factor in the farmer's profits when the produce is small and the cost of cultivation high.

There is very little entirely arable land let. Three small tenancies are at 6*s.* 8*d.* an acre, but most of the occupancies are of arable meadow and pasture, and the two latter are generally in excess of the former. It would seem then that Lord

Kingston's estates were generally grazing and sheep farms, though in Saundby there is still an open field[1]. But one cannot help thinking that some of the rents are at what in modern times is called an accommodation price, or resemble what is called in Ireland a town-park. Thus in Saundby, pasture is let at 16*s.* 3*d.*, 15*s.* 6*d.* and 14*s.* an acre; and another parcel, described as meadow, at a little over 18*s.* an acre.

In three cases the tenant is said to have paid a fine. In one of these cases, if we take the farm-house and cottages as thrown in, the tenant pays 6*s.* an acre; in the second, a little over 6*s.* 8*d.*; in the third, less than 5*s.* All three are in lease, though the duration of the term is not given. The fine is probably a year's rent in advance, if the practice of this estate followed the custom of the Colleges. The largest farm is of 607 acres, most of which is of meadow and pasture, and is let at a little over 9*s.* 10*d.* an acre. In one case the account states that a farm of 374 acres, almost entirely grass, and let at rather more than 9*s.* 6*d.* an acre, will bear an additional rent of £20. It would seem that the tenants are numerous, and that small parcels of land are held with the cottages.

In Tandridge, where 2,391 acres are assessed, there appear to have been in 1600 fifty-five different occupiers or owners, the largest holding being of 350 acres, the second of 270, the third of 260, the fourth of 256, the fifth of 190, the sixth of 120. The fourth of these is a magistrate, and assists at the assessment. Deducting these, who hold together 1,446 acres, the average tenure of the remaining forty-nine is a little over nineteen and a quarter acres each. In this Surrey village then, land was a good deal distributed; and it appears evident that every one of the inhabitants held or owned land. It is improbable indeed that the village would have contained more than 220 inhabitants, i.e. four to each household.

In my fourth volume, when dealing with the subject which

[1] In Lowe's Survey of Notts, 1794, Walkeringham, Saundby, Wheatley, and Leverton are said to be 'open.'

I am resuming here, I attempted, and with considerable success, as the discovery of subsequent evidence showed, to interpret what was the farmer's profit in the middle of Elizabeth's reign, and what was consequently the rent capacity of an English tenancy at that time. Early in the seventeenth century the rent of land was at least increased sixfold over that which was paid a generation before, and as I believe almost entirely from the increased price of grain, and in a minor degree from that of other farm produce. Now, as I have shown in the last chapter, the average of wheat between 1541 and 1582 was 13*s.* 10½*d.* the quarter, between 1583 and 1642 36*s.* 1*d.*, or from unity to 2·6084, the price of the five different kinds of grain used for human food being from unity to 2·2201. Now it was upon this difference especially that the landowner was able to obtain an increased rent, whether by the competition of tenants, as Norden alleges, or from the power of enforcing an increase by the threat of dispossession, as all other writers on the agricultural situation allege. The hints given by Gregory King as to the condition of the farmer in his time are conclusive as to the latter having been the most powerful cause, and the situation is further illustrated by the fact that by the evidence of the Coke rentals the whole rise was effected early in the seventeenth century.

Now there is no economical problem more interesting at all times, none which is so interesting at the present time, than the question how rents should be adjusted to a rise or fall in agricultural prices. It is obvious that a moderate fall in the money value of agricultural produce will render a rent ruinous, which before the fall occurred was borne with ease, provided that the cost of production is not materially lessened; and similarly the upward tendency of rents is rapid and obvious when prices rise and the cost of production is not materially increased. Now the latter conditions represent the state of the case during the first quarter of the seventeenth century, when as I have said rents rose sixfold, because on the whole the price of corn products rose 132 per cent. The enhanced price

of labour may be taken as fully compensated by the rise in the price of other agricultural products, and the problem may in this case be simplified by taking corn products only. In the period of 1*s.* an acre the farmer obtained, on taking wheat, barley, malt and oats together, 9*s.* 6¾*d.* a quarter for each kind of grain; in the period of 6*s.* an acre, 22*s.* 5¼*d.* In the first period, taking his produce constantly at 12 bushels an acre, the produce would fetch 14*s.* 4¼*d.*; in the second, 33*s.* 8*d.*, i. e. be increased 132 per cent. He would therefore have 19*s.* 3¾*d.* more money for the produce of an acre in the second than he had in the first period, and would readily infer that he could give a full fourth of this exalted price to the landlord in order to secure the advantage of cultivating the soil. Of course this calculation is on the hypothesis that the price was not due to deficient harvests, that element of risk which economists always allege to be frequent, which must be estimated as far as possible in all profits, and is most dominant but least calculable in agricultural profits.

It would seem, that as, during the period before me, and indeed in most farming for one or two generations later, one third of a farmer's holding was in fallow, the average annual value of the corn-crops procured in a 200-acre farm from such land as was under the plough was £225 11*s.* This assumes a general rate of twelve bushels to the acre of merchantable corn, the prices of such produce being taken from the records which I have consulted and of actual market sales or purchases. If we conclude that the cultivation of such a farm would require the service of five hands, exclusive of the farmer's own labour and superintendence, at £15 12*s.* a year, the labour bill will amount to £78, and the rent, at 6*s.* an acre, to £60. The tithe will be £20, and the first charges on arable cultivation will therefore be £158, leaving £67 11*s.* as compensation for the farmer's capital (say, at £2 an acre, £400) and for his own labour Now in 1732 Lord Lovell of Holkham, in a year when wheat was only 20*s.* a quarter, rye 14*s.*, barley 11*s.*, malt (including the tax, a little over 4*s.* the quarter) 20*s.*,

and oats 10*s*. 9*d*., pays his bailiff and shepherd £36 a year[1]. Let us put the maintenance of the farmer and his family at £30, and he has £37 11*s*. remaining as profit on his capital, for a sinking fund and for risk—the risk being often great.

That the farmer had other and minor products from his farm is highly probable. He may have kept a small flock of sheep and a few cattle. But my hypothesis is that his farm was principally arable and corn land, and I am persuaded, if the profits of his live stock were but represented by the manure which he obtained by keeping them, and was necessary for the cultivation of the soil, these profits were more than absorbed in the cost of seed-corn, a most important item in the scanty production of this period. On a large farm, with extensive pastures or commons, several or enclosed meadows and wide sheep-runs, the raising of cattle was no doubt, a source of considerable profit. Lord Lovell in 1732 received £486 16*s*. 8*d*. from the sale of corn, £579 5*s*. 3*d*. from the sale of cattle, sheep, pigs, hides and wool. I have no doubt, from the accounts which Lord Leicester has lent me of his ancestor's agriculture, from 1731 to 1735 inclusive, that the area which Lord Lovell held was not less than 1500 acres, and perhaps more, i. e. 7½ times more than the hypothetical holding which I have been commenting on.

The estimates made by Gregory King suppose that England and Wales contained nine million acres of arable land, and twelve million of meadow and pasture. These calculations are vague, and the total estimated area of the country is considerably in excess of the facts. King considers[2] that there were 310,000 small freeholders and farmers; a number which would give a little less than sixty-eight acres of arable and pasture to each family, or a little over twenty-nine acres arable. The average of the fifty-five owners and occupiers in Tan-

[1] The labour bill on Lord Lovell's estate in 1732 is £714 4*s*. 9½*d*. out of a total expenditure (including a rent of £313 12*s*. 9*d*.) of £1111 5*s*. 2½*d*., the receipts being £1519 12*s*. 10*d*.

[2] King's calculations are in Davenant, vol. ii. pp. 175 sqq.

dridge is nearly 43½ acres, and it is highly probable that such was the ordinary holding of the husbandman in the seventeenth century. On many of these holdings the occupier and his family were no doubt the sole labourers, as they are on holdings of this extent in Ireland at the present time, where with exorbitant or famine rents the produce is not very greatly in excess of that which was gathered in England two centuries ago, prices having latterly fallen almost to the level of the seventeenth century, and in some kinds of grain considerably lower than that level.

Nor is there much difference in the price of cattle. In Lord Lovell's account of 1732, out of twenty-six cattle slaughtered and sold at 3*s.* and 3*s.* 6*d.* the stone of 14 lbs. the heaviest animal is only 610 lbs. weight, and most of them, when dressed, are under 400 lbs. The heaviest sheep weighs 65 lbs., and most are about 50 lbs. And this is under the management of a wealthy and enterprising agriculturist, thirty years after the date at which these volumes close, and on land which grew turnips, cole, clover, lucerne, and nonsuch or trefoil.

The domestic life then of the seventeenth-century English farmer was one in which the products of his industry, even though prices were so largely enhanced, were not by themselves sufficient to meet the charges of his calling, and leave him, beyond a reasonable profit on his capital, the means for saving and of bettering his condition. He could indeed by working as hard as the labourer did, whose wages were regulated by the justices in quarter sessions, get a more abundant maintenance, perhaps even a coarse plenty. When the seasons were propitious, he was distressed by the proportion which his rent bore to the price of that which he had to sell. If the seasons were unfruitful, he was straitened by the scantiness of his produce. And above all, he was discouraged from venturing on improving his holding by the risk of having his rent increased, by the agent informing the landlord that 'he could bear to be raised,' and by being made to pay toll on the fertility which he had himself induced on the soil. Under such

a system it was impossible that agriculture should progress, and during the seventeenth century, only local improvements were made, which the ordinary farmer could not or dared not adopt. The change was to come from the singular outburst of agricultural activity and energy among the propertied classes in the eighteenth century, the Cokes, the Townshends, and a thousand others, who vied with each other, as Arthur Young says, from a duke to an apprentice, in making British agriculture perfect. They made the British farmer the best agriculturist in the world, and their worthless descendants have beggared him.

CHAPTER XXVIII.

ON THE PURCHASING POWER OF WAGES.

THE condition of the poor, the decay of towns, and the substitution of sheep-farming for agriculture, led to much legislation during the first half of the sixteenth century. Henry made some attempt to meet the difficulties, most of them due to his own rapacity and extravagance, by violent and foolish legislation. His son (or rather his son's guardians), and his daughters with better intentions, or at any rate with more reasonable expedients, struggled with a social scandal, which was in such woful contrast with a by-gone national prosperity, and seemed so full of danger. During sixty years, from 1541 to 1601, twelve Acts of Parliament were passed with the distinct object of providing relief against destitution[1], the series being completed by the famous Act of 1601. This Act was originally passed as a temporary law, and was made perpetual at the Restoration, when the law of parochial settlement was enacted. From the Restoration and through the Revolution it was the object of the legislature, while it secured to the labourer legal relief against destitution, not at the cost of his employer but of occupiers generally, to make the condition of the peasant as servile and as hopeless as greed, on which the law had conferred effectual power,

[1] These are, 32 Hen. VIII. cap. 12; 37 Hen. VIII. cap. 23; 1 Edw. VI. cap. 3; 5 & 6 Edw. VI. cap. 2; 7 Edw. VI. cap. 11; 2 & 3 Phil. and Mary, cap. 5; 5 Eliz. cap. 3; 14 Eliz. cap. 5; 18 Eliz. cap. 3; 35 Eliz. cap. 7; 39 Eliz. cap. 3; 43 Eliz. cap. 2. These must be examined in the large folio edition of the Statutes or in the original issues. They are all omitted from ordinary editions of the Statutes at Large.

could make him. The law under which his wages were fixed by the quarter sessions assessments was effectually supplemented by 14 Chas. II. cap. 12, by 3 Will. & Mary, cap. 11, by 8 & 9 William III. cap. 30, by 9 William III. cap. 11, and by 11 William III. cap. 13. The profligates of the Restoration and the patriots of the Revolution were equally interested and equally active in starving and degrading the labourer, whose present condition, where the efforts of combination in labour partnerships have been untried or are as yet abortive, is as surely the outcome of those selfish, sordid, and unsleeping agencies which were actively at work and were most effectively malignant for three dreary centuries of oppression.

Now during the sixty years in which legislation for the relief of destitution was attempted, the decennial averages of wheat were 10*s.* 8*d.*, 15*s.* 3¾*d.*, 12*s.* 10¼*d.*, 16*s.* 8*d.*, 23*s.* 8¼*d.*, and 34*s.* 10¼*d.*, the price during the last decade being greatly enhanced by the serious famine at the end of the seventeenth century, though the price was to go on increasing till after the Restoration. Now during this period of sixty years, and of increasing prices, the Government, perhaps remembering the action of Tyler and Cade, and certainly that of Ket, were attempting on the one hand to relieve destitution, and on the other to establish an organisation through the whole kingdom by the machinery of the county magistrates (who should be compelled to act under penalties, and should report their decisions to the Privy Council) which should effectually check the explosion of discontent, and make the peasant servile, if he was starved, and apathetic under oppression. But if we take the average of wheat prices over the whole period of the sixty years 1541–1600, it will be found to be but 19*s.* a quarter, and though shrewder heads might be sure that there would be no recurrence to old rates, the mass of men must have concluded that some evil cause was at work which had substituted stint and penury for the old days of abundance. The price of ordinary agricultural labour during the same decades was, by the week, 2*s.* 3¾*d.*, 3*s.*, 3*s.* 6*d.*, 3*s.* 11¼*d.*, 4*s.*, and

4*s*., the average being 3*s*. 5½*d*. Now the price of wheat had risen above its old rate from unity to 3·166̇, of labour from unity to 1·729. The quarter sessions assessment, which took into account 'the plenty and scarcity of provisions and other necessaries,' will be seen to have been a very potent engine. And yet my prices are higher than their allowances.

Among the recognised and accredited economists, Adam Smith is the only writer who has attempted to grapple in the least degree with the historical causes which have induced on English labour its present condition. He had indeed no statistical information as to the wages of labour at different epochs of English history, though there is little doubt that his work led to Sir Frederic Eden's enquiry into the State of the Poor. But Smith was far too shrewd and sagacious a person to doubt that there were causes other than the action of workmen themselves for the beggarly condition to which they had been reduced, a condition soon to be far worse. He denounced with honest and becoming indignation the infamous law of parochial settlement, a law which stimulated the most sordid dishonesty among many landowners. He exposed the sophism often uttered by selfish and scheming knaves of the protectionist and fair-trading school, that high prices of food bring with them high rates of wages, a falsehood which will I trust be sufficiently refuted by these pages. 'The wages of labour,' he says, 'do not sink with the profits of stock. The demand for labour increases with the increase of stock whatever be its profits[1].' He did not therefore think it just that violent efforts should be made to reduce the rate of wages when ordinary profits, according to interested clamour, declined, or seemed to decline. Above all, his experience of human affairs saved him from uttering the absurdity so common among modern economists, that wages cannot increase except at the cost of profits. He saw indeed that some profits could be procured by the starvation of labour, but he denounced the system and its agents, and

[1] Wealth of Nations, i. 97.

discerned that the policy was not one of progress, but of stagnation, perhaps retrogression.

The writer who was supposed to fill up what was wanting in Adam Smith, and to define accurately what were the principles on which an economic society was inevitably and unalterably regulated, was Ricardo, an acute and prosperous gambler on the Stock Exchange. Himself a conspicuous and successful example of the men who get wealth but do not make wealth, he delivered himself[1] of some kindly and cheap sympathy for labour, but utterly ignored the facts which had brought about the shameful condition to which labour in his time was reduced. His book was a great success. It seemed to denote that artificial rents, induced by fraud and force, were the outcome of a wise Providence, in which the gains of the accidental few were a divine dispensation, and the miseries of the oppressed many should be a solemn caution to nations not to approach too near the margin of unproductive cultivation. The same benevolent Providence, as interpreted by this author, was the creator and protector of the gains of capital, though while he wrote all the positive forces of law and justice were enlisted on the side of the employer, and any attempt on the part of the labourer to sell his necessary stock at the best possible price was punished with the hulks and transportation. Surely before people write about society, they should study a little of how society has been formed, how it has been warped, and how not once but many times they who have been entrusted with the functions of government have brought headlong ruin on the nation whose affairs they have administered, and on their worthless selves at last. When Ricardo put his opinions on paper Sir Frederic Eden had written his history of the poor. But Ricardo does not seem to have noticed that work, or even to have troubled himself with the mass of mischievous legislation by which the few were enriched and the many impoverished, viz. the economical laws on the Statute-book.

[1] Principles of Political Economy and Taxation, p. 54.

I know no person whose friendship I valued more than that of Mill. I greatly respected his candour; I admired his translucent utterances. No man ever gave one a clearer conception of what he meant at the moment. He was so earnest and so convinced. so gentle and so modest, that for a time one felt sure that he must be right. But few writers I am sure have been so much in the wrong, and few writers have done so much mischief as he has. The evil came from want of knowledge. His estimate of economical causes was entirely autobiographical. He mistook his own impressions of the social state for the causes which had brought them about. He believed, for he told me so, and he never said what he did not believe, that every moral gift and every intellectual power could be imparted by education. The beggary, the misery, the improvidence, the recklessness of the English labourer were in his mind due to immediately preventible causes. Had he studied economical history, and given their due weight to that vast series of causes which made the English peasant what he is, I am convinced that his indignation would have been directed against other agencies than those which he collected and criticised. But unfortunately, he wrote on social conditions without a preparatory training, even in those facts which had been published.

Even under the most favourable circumstances, of an urgent demand for labour and of labour organised into partnerships which watch for and give effect to their opportunities, it is exceedingly hard for the wage-earning classes to make head against a rise in prices, and to secure for themselves their share in the upward movement. And when, as in the seventeenth century, prices had been on an average near sevenfold [1] what they had been at little more than a century earlier, it would have required the most strenuous efforts on the part of labourers to keep their earnings up, and impossible to make them attain their old level. But not only were their funds

[1] Wheat from 1260 to 1542, 5*s.* 11¼*d.* a quarter; in the seventeenth century, 41*s.*

confiscated and their organisation proscribed, but they were handed over to the merciless regulations of the justices' quarter sessions.

In my fourth volume, p. 731, I gave an account of the contrast between the price of corn and the average of a week's wages, taken from the recorded payments made to the following workmen—the average carpenter, mason, pair of sawyers, and tiler, who may be considered as representing skilled labour; and the mason's, carpenter's, or bricklayer's labourer, the tiler's or thatcher's help, and the best paid agricultural labourer, that is a good hedger, ditcher, or digger. I have continued this contrast in the annexed table, in which I have given the wheat prices of the hundred and twenty years of the present period, and the rate of wages actually paid under those several heads, reduced to a similar average. In doing this, as there are occasional but not numerous gaps in the evidence, I have filled up the few vacant years by striking a mean between the two nearest entries of the same kind of labour, in order to supply the void, it being entirely certain that such wages were paid, though no entry is extant, and it being equally certain that, were the evidence hereafter discovered, it would not modify my results by the fraction of a farthing. I have however avoided the entries of London labour, as the circumstances are totally different, the justices' assessment not applying to the metropolis, and the rate of wages for many reasons being necessarily higher (66 per cent.) than that paid in country places. It will be seen from this table, that so far was it the case from wages being made to conform 'to the plenty and the scarcity of the time,' that wages are not infrequently lower in dear than in cheap years, as though the necessity of the labourer earning his bread in hard times was made a plea for stinting him of what had been his previous wages. My reader will also be able to recognise the decided increase which was made in his wages at the epoch of the Commonwealth.

Average Prices of Wheat and Labour.

	Wheat by the quarter.		Labour by week.			Wheat by the quarter.		Labour by week.	
	s.	*d.*	*s.*	*d.*		*s.*	*d.*	*s.*	*d.*
1583–4	20	0	5	1½	1616–7	42	7	5	6¾
1584–5	18	9½	5	0⅜	1617–8	45	1	5	3¾
1585–6	31	0	5	4	1618–9	32	7½	5	5⅝
1586–7	45	8¾	5	0⅜	1619–20	25	10½	5	6
1587–8	16	0½	5	6	1620–1	25	5	5	7½
1588–9	15	0¼	5	2⅝	1621–2	40	9	5	8¼
1589–90	26	11½	5	4¾	1622–3	51	1	5	7½
1590–1	25	4	4	11⅝	1623–4	37	8	5	6
1591–2	18	1¼	5	5¼	1624–5	43	0½	5	7¾
1592–3	20	10	4	11¼	1625–6	48	3¾	5	8¼
1593–4	24	8¾	5	4½	1626–7	33	0	5	6
1594–5	37	7½	5	4¾	1627–8	26	4¾	6	0¾
1595–6	40	9½	5	2¼	1628–9	32	11¼	6	1½
1596–7	56	6¼	5	3½	1629–30	42	1¾	6	3¾
1597–8	52	4½	5	1⅛	1630–1	64	6	6	6¾
1598–9	31	1½	5	3⅜	1631–2	40	11¼	6	6
1599–1600	26	8¾	5	3¾	1632–3	47	3¼	5	9
1600–1	34	9	5	3½	1633–4	43	9½	6	3
1601–2	24	2	5	2	1634–5	41	7¾	7	0⅜
1602–3	26	9	5	3¾	1635–6	44	9½	5	10½
1603–4	26	7¼	5	2	1636–7	43	7¾	6	2
1604–5	29	7	5	3	1637–8	47	9½	6	1⅛
1605–6	27	8½	5	5¼	1638–9	39	4¾	6	2½
1606–7	31	9½	5	4½	1639–40	35	3¼	6	0¾
1607–8	37	6¼	5	4¼	1640–1	43	11½	6	0¾
1608–9	53	0½	5	3¾	1641–2	36	2½	6	8¼
1609–10	35	2¼	5	4½	1642–3	35	2¼	6	9
1610–1	32	7	5	5¼	1643–4	33	8½	6	9
1611–2	37	1¾	5	4½	1644–5	34	11¼	6	10½
1612–3	41	10	5	3⅜	1645–6	34	9½	7	6
1613–4	44	8¼	5	4½	1646–7	51	10¼	7	2
1614–5	35	1½	5	6	1647–8	62	6	6	11¼
1615–6	34	2¾	5	9	1648–9	67	10½	7	4⅜

	Wheat by the quarter.		Labour by week.			Wheat by the quarter.		Labour by week.	
	s.	*d.*	*s.*	*d.*		*s.*	*d.*	*s.*	*d.*
1649-50	65	6	8	5¾	1676-7	30	9½	8	1½
1650-1	55	4	7	11¼	1677-8	46	11	7	10½
1651-2	48	10	7	5	1678-9	53	0½	7	11¼
1652-3	33	10¾	7	8¼	1679-80	38	5¾	7	8¾
1653-4	25	2½	7	6	1680-1	39	7¾	7	11
1654-5	21	8	7	7½	1681-2	36	0¾	8	3
1655-6	33	2¼	8	1½	1682-3	34	5¾	8	2¼
1656-7	37	1½	8	0¾	1683-4	37	4½	8	3
1657-8	46	5¾	7	9¾	1684-5	45	10¾	8	3
1658-9	57	10¾	8	0¾	1685-6	28	1¾	8	10½
1659-60	52	1	8	3	1686-7	32	4	8	8¼
1660-1	51	7¾	8	7½	1687-8	27	4	8	8
1661-2	70	9¾	8	0¾	1688-9	26	9½	8	8
1662-3	45	8¾	8	3¾	1689-90	29	11¾	8	8
1663-4	46	6½	8	2¼	1690-1	28	10¼	8	8
1664-5	39	5¼	8	3¾	1691-2	38	1½	9	0
1665-6	35	7¾	8	3¼	1692-3	49	10¾	8	11
1666-7	28	1¼	8	4	1693-4	63	5¼	9	0
1667-8	31	2½	8	0¼	1694-5	36	8¼	8	8⅝
1668-9	37	10	8	4	1695-6	49	11½	8	9
1669-70	33	1½	8	3	1696-7	51	4	8	8
1670-1	35	8¾	8	0⅝	1697-8	62	5¼	8	8
1671-2	34	0½	8	3⅜	1698-9	57	2	8	9
1672-3	35	8¼	7	8¼	1699-1700	45	1	8	8½
1673-4	54	11¼	7	10½	1700-1	31	7	8	6
1674-5	51	8¾	7	11½	1701-2	26	7	8	8
1675-6	35	7¾	8	2¼	1702-3	28	1½	8	8

Poor however as these wages are, and markedly as they are to be contrasted with those which ruled a century before, they are a good deal higher than those allowed by the justices' assessments. If we take the same artisans and labourers as are contained in the averages of the foregoing table with the allowances made to the same classes of workmen in York (1593), in Lancashire (1595), in Rutland (1610), in Gloucester (1632), in Essex (1651), in Gloucester (1655),

and in Warwickshire (1684), we shall find that the average of the allowances is as follows—

1593	3*s.* 0⅜*d.*	1651	7*s.* 0¾*d.*
1595	3*s.* 0⅜*d.*	1655	7*s.* 11¼*d.*
1610	4*s.* 0¾*d.*	1684	5*s.* 3*d.*;
1632	5*s.* 3*d.*		

while the averages from wages actually paid are 5*s.* 4½*d.*, 5*s.* 2¼*d.*, 5*s.* 5¼*d.*, 5*s.* 9*d.*, 7*s.* 5*d.*, 8*s.* 1½*d.*, and 8*s.* 3*d.* The employer of labour was more merciful than the magistrates, notwithstanding the penalties which these 'little tyrants' denounced against all who infringed the scale. The payments were pitiful enough, they thoroughly account for Gregory King's discovery that labourers diminished instead of adding to national wealth, but they are better than the justices would have given, and, as we are expressly told under the Rutland assessment, were actually paid in that county for the next quarter of a century.

It is undoubtedly essential to the well-being of any country that it should accept and obey a central administration, whose first business it is to aggregate all necessary force for the protection of society from external and internal foes. But there is always a danger that the forces of governments, the action of parliaments, the power of laws may be more injurious to a community than foreign and domestic foes are. Ancient civilisation was wholly destroyed by the administration of the Roman republic and empire. Bad governments have ruined Spain and nearly ruined Italy in more modern times. And the reason has been that governments have used their powers, which they call the Constitution, not as trustees for the public good, but as agents for their own gain. We in England have had plentiful experiences of this breach of trust. The people of Ireland have had no other experience. And so the historian of social life, who knows from the inductions which he is constrained to make, how much of present mischief is due to past malversation and embezzlement, and that assuredly the same malpractices would recur

if the same self-interest were permitted to assert itself, is indignant at what may appear to be remote misdeeds, because he knows that the consequences of them still survive, and that the men who did the wrong in time past would do it in time present if they had their way and their chance. Of all the men one should distrust, none are more to be avoided or exposed, as prudence suggests or opportunity offers, than those who parade false ideals, for the sake of their private greed or ambition[1].

It yet remains that I should point out how, in prices of the time, the pittance which the labourer earned could be expended. During the last sixty years of the century, when labour had achieved a rise, the carpenter (p. 672) could earn 10*s.* 2¾*d.* a week, the mason 9*s.* 10¾*d.*, the pair of sawyers 19*s.* 0¼*d.*, the tiler or slater 9*s.* 8¾*d.*, the tiler's help 5*s.* 3½*d.*, the artisan's labourer 6*s.* 7¾*d.*, and the first-class agricultural hand 6*s.* 4¾*d.* Now there are many illustrations given in Arthur Young, and collected during the course of his tours, of the cost to which the labourer was put for his maintenance, and except that agricultural rent and wages were a little raised in Young's time, the change in other prices is not, taking the experience of the first three quarters of the eighteenth century, materially important in forming an estimate. Now if we assume that these several labourers worked for fifty weeks a year,—and this is a very liberal, perhaps excessive, estimate,—the average yearly wages of the carpenter, from 1643 to 1702 inclusive, will be £25 11*s.* 5½*d.*, of the mason £24 14*s.* 9½*d.*, of the pair of sawyers £43 1*s.* 0½*d.*, of the tiler £24 6*s.* 2½*d.*, of the tiler's help £13 4*s.* 7*d.*, of the artisan's labourer £16 3*s.* 3½*d.*, and of the best paid agricultural labourer £15 19*s.* 9½*d.* Now the average price of wheat during these sixty years is 41*s.* 11¼*d.*, of malt 22*s.* 2¼*d.*, of oatmeal 52*s.* 11*d.*, of beef 3*s.* 5½*d.* the stone of 14 lbs. or nearly 3*d.* a pound, of mutton and pork the same price, of butter a little over 6*d.* a pound. It is probable that most

[1] 'Qui questus sui causa, fictas suscitant sententias.' Cic. De Divinatione.

peasants had, as the Irish cottiers now have, a cow, and that they needed not to purchase butter. But 26*s.*, or the price of a pound of butter weekly, would not be more than sufficient for fuel.

Now if we allow a family two quarters of wheat, two of malt, and one of oatmeal yearly, the cost at the above prices comes to £9 1*s.* 2*d.* The rent of his cottage and garden will not be less than 6*s.* a quarter or 24*s.* a year, and the fuel for his household at least 26*s.* yearly. This brings up the necessary charges to £11 11*s.* 2*d.* Four pounds of meat weekly raises the sum to £14 3*s.* 2*d.* The annual cost of tools is set by Arthur Young at 15*s.*, and of clothing £6 9*s.*[1] At such a rate of expenditure the wages of the unskilled workman are insufficient to meet the cost of living, and it is certain that the last two items were cheaper in the eighteenth than they were in the seventeenth century, and in the estimate which was supplied to Young, meat and similar extras, the price not differing materially from that which ruled during the last sixty years of the period before me, were set down at a much higher amount than I have reckoned them.

Now in 1731–32, when the prices of corn were considerably lower than they were in the period before me, Lord Lovell of Holkham hires four men at yearly wages. To two of them he gives £8 1*s.* each in money, to a third £6 10*s.*, to a fourth £5 1*s.*, and contracts with his bailiff and shepherd to lodge and board them at £12 a head yearly, the average cost of the four being £18 18*s.* 3*d.* The estimated expenditure therefore of a labourer with his wife and two young children in a cottage cannot be considered as exaggerated or excessive if it be put at £21 7*s.*, the amount stated in the above calculation, and a less expenditure must have implied a considerable stint on the family.

The estimate which has been here made takes no account of harvest earnings, the contingent earnings of other members than those of the head of the family, or of bye-industries. But, on the other hand, it assumes that the workman is

[1] Eastern Tour, vol. i. 446. Young got his information from another person.

employed for fifty weeks in the year and for six full days in the week, a regularity of employment which is highly improbable in the case of the artisan, and not more likely in that of the labourer, whose employment depends on the hiring of the artisan. In the case of the agricultural labourer, I am taking the most highly paid service (that of piecework in harvest time) which is engaged on the farm, for even in Young's time ordinary and regular agricultural labour seldom gets more than 7*s.* a week, and Young constantly insists that wages have greatly risen within twenty years of the date at which he composed his Tours[1]. His average of thirty nine localities is 7*s.* 10*d.* a week.

It is of course very possible that the wages ordinarily earned by artisans and unskilled labourers were supplemented by the earnings of their wives and children, though they never were to the impossible extent which Young contemplates and quotes as normal, under which the earnings of a labourer with his family are frequently represented as in excess of the profits of a moderate-sized farm. Nor must too much weight be given to bye-industries. They are notoriously remunerated in the vast majority of cases at less than the labour would be if it were engaged on the ordinary industry in which the agent is reputed to be generally occupied. There are instances at once conceivable and actual, in which the bye-industry is of considerable significance, as for example when it represents a product which is consumed by the family, and from which therefore a saving in the ordinary expenditure of the household is effected, or when the ordinary avocations of the workman are so necessarily circumscribed, as in small farming, or in occupations in which employment is precarious, that the working hours of the family during the year would fall far behind the capacity for work which the family possessed. Such was the domestic linen-spinning and weaving of Ulster, such was much of the woollen-weaving of North Lancashire and West Yorkshire, and such in the time of Arthur Young was the character of much

[1] See, for example, Eastern Tour, vol. iv. p. 312.

labour in the so-called manufacturing districts of South and East England.

Gregory King[1] supposed, writing at nearly the end of the period before me, that the average earnings of 'labouring people and out-servants' were £15 15*s.* a family, a sum which closely corresponds to the average of the three kinds of unskilled labour given above, which is £15 2*s.* 9*d.*, and he reckons their expenditure as decidedly in excess of their income, i.e. as necessarily supplemented by the poor-rate. My calculations point to the same conclusion, and are derived from evidence which was not in King's hands, and but partially in Young's, the actual wages received by workmen and the prices of provisions. My reader can easily test my inferences from the materials with which I have supplied him.

Treat the facts as one will, this certainly remains. For ill, for persistent ill, the effects which the Act of Elizabeth rendered possible, and the action of the quarter sessions made a serious reality, endured in the case of the artisan to comparatively recent times, and have not passed away in that of the peasant. The modern phenomena of rent and wages and their relations to each other had their beginnings in the seventeenth century. In no period of English economical history, except during the long continental war, was the lot of the peasant (made by design and through the agency of law and its administration) more depressed and degraded than it was when the patriots were battling for constitutional rights, than when the profligates profited by the reaction, and at last the men of the second Revolution, after changing the dynasty, made the industry of England their prey. We are struggling with the policy of that Revolution in Ireland, and a criticism, which seems likely to be destructive, is examining it in the rest of the country, for I suppose, as time goes on, institutions, however ancient and sacred they may seem, will have to prove their usefulness, in order to secure their existence.

[1] Davenant's Works, ii. p. 184.

INDEX.

F.

T.

U.

V.

THE END OF VOL. V.

Works

BY

J. E. THOROLD ROGERS, M.A.,

PUBLISHED BY THE CLARENDON PRESS.

A History of Agriculture and Prices in England, A.D. 1259–1793.

Vols. I and II (1259–1400). 8vo. *cloth*, 2*l.* 2*s.*

Vols. III and IV (1401–1582). 8vo. *cloth*, 2*l.* 10*s.*

Vols. V and VI (1583–1702). 8vo. *cloth*, 2*l.* 10*s.*

Gascoigne's Theological Dictionary ("Liber Veritatum"): Selected Passages, illustrating the condition of Church and State, 1403–1458. With an Introduction. Small 4to. *cloth*, 10*s.* 6*d.*

Protests of the Lords, including those which have been expunged, from 1624 to 1874; with Historical Introductions. 3 vols. 8vo. *cloth*, 2*l.* 2*s.*

The First Nine Years of the Bank of England: An Enquiry into a Weekly Record of the Price of Bank Stock, from August 17, 1694, to September 17, 1703. 8vo. *cloth*, 8*s.* 6*d.*

Adam Smith's Wealth of Nations. A new Edition, with Notes. 2 vols. 8vo. *cloth*, 21*s.*

A Manual of Political Economy, for the use of Schools. *Third Edition.* Extra fcap. 8vo. *cloth*, 4*s.* 6*d.*

Oxford

AT THE CLARENDON PRESS

LONDON: HENRY FROWDE

OXFORD UNIVERSITY PRESS WAREHOUSE, AMEN CORNER, E.C.